

COUNTY PALATINE OF LANCASTER.

---

# REPORT

OF THE

# MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1933,

WITH STATISTICAL INFORMATION FROM REPORTS OF  
DISTRICT MEDICAL OFFICERS OF HEALTH.

---

*(Presented to the County Council, November 1st, 1934.)*



*G. Tintling & Co. Ltd., Liverpool, London and Prescott.*  
1934.



# 3

## CONTENTS.

|                                                                                     | PAGE |
|-------------------------------------------------------------------------------------|------|
| PUBLIC HEALTH AND HOUSING COMMITTEE AND MIDWIVES ACT COMMITTEE ... ..               | 5    |
| MINISTRY OF HEALTH CIRCULAR 1346... ..                                              | 7    |
| STATISTICS AND SOCIAL CONDITIONS OF THE COUNTY ... ..                               | 8    |
| Area of Administrative County ... ..                                                | 8    |
| Population—Census 1931 and Estimated 1933 ... ..                                    | 11   |
| Number of Inhabited Houses and Number of Families or Separate Occupiers ... ..      | 11   |
| Social Conditions including the Chief Occupations ... ..                            | 12   |
| Rateable Value ... ..                                                               | 14   |
| Vital Statistics :—                                                                 |      |
| Live Births and Birth-rates ... ..                                                  | 14   |
| Stillbirths ... ..                                                                  | 15   |
| Deaths and Death-rates ... ..                                                       | 16   |
| Mortality Tables, 1933 ... ..                                                       | 18   |
| Principal Causes of Death : ... ..                                                  | 31   |
| Heart Disease ... ..                                                                | 32   |
| Cancer ... ..                                                                       | 32   |
| Pneumonia ; Bronchitis ; Influenza ; Tuberculosis ; Cerebral Hæmorrhage ;           |      |
| Congenital Debility, Premature Birth, Malformations, etc. ... ..                    | 35   |
| Infant Mortality ... ..                                                             | 35   |
| GENERAL PROVISION OF HEALTH SERVICES IN THE COUNTY ... ..                           | 38   |
| Hospital Accommodation—Smallpox ; Other Infectious Diseases ... ..                  | 38   |
| Medical Services transferred to County Council... ..                                | 40   |
| Survey of Public Assistance Hospitals and Infirmaries... ..                         | 43   |
| Public Assistance Domiciliary Medical Services... ..                                | 55   |
| Treatment of Cancer cases under Scheme of Public Assistance Committee ... ..        | 57   |
| Tuberculosis—Sanatoria, Hospitals, Dispensaries ... ..                              | 59   |
| Maternity Beds, Hospitals for Children ... ..                                       | 60   |
| Institutional Provision for Unmarried Mothers, etc. ... ..                          | 60   |
| Maternity and Child Welfare Centres ; Day Nurseries ... ..                          | 60   |
| School Clinics ... ..                                                               | 60   |
| Venereal Diseases Treatment Centres ... ..                                          | 71   |
| Ambulance facilities ... ..                                                         | 72   |
| Vaccination—The Vaccination Acts and Order ... ..                                   | 72   |
| Public Vaccinators and Vaccination Officers ... ..                                  | 75   |
| Public Health Officers of the County and of Local Authorities ... ..                | 81   |
| Professional Nursing in the Home ... ..                                             | 85   |
| Midwives ... ..                                                                     | 87   |
| SANITARY CIRCUMSTANCES IN THE COUNTY ... ..                                         | 87   |
| Water Supply ... ..                                                                 | 87   |
| The Local Government Act, 1929—Financial Assistance... ..                           | 88   |
| Local Water Supplies ... ..                                                         | 88   |
| Rivers and Streams ... ..                                                           | 95   |
| Drainage and Sewerage ... ..                                                        | 96   |
| The Local Government Act, 1929—Financial Assistance... ..                           | 97   |
| Closet Accommodation ... ..                                                         | 98   |
| Public Cleansing ... ..                                                             | 106  |
| Sanitary Inspection ... ..                                                          | 107  |
| Smoke Abatement ... ..                                                              | 110  |
| Offensive Trades ; Rag Flock Acts ; Factories, Workshops and Workplaces ... ..      | 112  |
| Common Lodging Houses, etc. ... ..                                                  | 113  |
| Canal Boats ... ..                                                                  | 113  |
| Schools ... ..                                                                      | 113  |
| Chief Sanitary Requirements of Districts ... ..                                     | 113  |
| HOUSING ... ..                                                                      | 117  |
| Housing Act, 1930—Slum Clearance, &c. ... ..                                        | 118  |
| Housing Statistics for the year 1933 ... ..                                         | 125  |
| New Houses ... ..                                                                   | 125  |
| Housing Conditions ... ..                                                           | 130  |
| Housing (Rural Workers) Acts, 1926 and 1931 ... ..                                  | 133  |
| INSPECTION AND SUPERVISION OF FOOD ... ..                                           | 133  |
| Milk Supply ... ..                                                                  | 133  |
| Milk and Dairies (Consolidation) Act, 1915... ..                                    | 135  |
| Dairies, Cowsheds, and Milkshops ... ..                                             | 136  |
| The Milk (Special Designations) Order, 1923 ... ..                                  | 139  |
| Examination of “Grade A” Milk Samples ... ..                                        | 140  |
| Inspection of Meat and Other Food. Unsound Food ... ..                              | 144  |
| Slaughterhouses, Public Abattoirs ... ..                                            | 144  |
| Food Poisoning ... ..                                                               | 144  |
| Bakehouses ... ..                                                                   | 144  |
| Food and Drugs (Adulteration) Act, 1928, &c. County Analyst’s Report ... ..         | 144  |
| PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES ... ..                           | 158  |
| Notifications ; Removals to Hospitals ; Deaths ... ..                               | 159  |
| Death-rates from the Principal Infectious Diseases ... ..                           | 174  |
| Smallpox ; Scarlet Fever ... ..                                                     | 175  |
| Diphtheria ... ..                                                                   | 175  |
| Immunisation—Special Reports (Dr. A. V. Stocks) ... ..                              | 176  |
| Enteric Fever ; Measles ; Whooping Cough ; Chicken-pox ; Diarrhœa ... ..            | 189  |
| School Closures ... ..                                                              | 189  |
| Acute Poliomyelitis ; Acute Polio-encephalitis ; Encephalitis Lethargica ; Cerebro- |      |
| Spinal Fever ... ..                                                                 | 190  |
| Acute Anterior Poliomyelitis—Special Report (Dr. A. V. Stocks) ... ..               | 190  |
| Reports under Sanitary Officers Order, 1926 ... ..                                  | 197  |
| Hospital Isolation ... ..                                                           | 197  |
| Disinfection ; Disinfection ... ..                                                  | 197  |
| Animal and Insect Pests ... ..                                                      | 198  |
| Tuberculosis : Notified Cases and Deaths ... ..                                     | 198  |
| Pulmonary Tuberculosis ... ..                                                       | 198  |
| Non-Pulmonary Tuberculosis ... ..                                                   | 199  |
| The Public Health (Tuberculosis) Regulations, 1930—Notifications ... ..             | 199  |
| County Tuberculosis Scheme ... ..                                                   | 201  |
| The Public Health (Venereal Diseases) Regulations, 1916 ... ..                      | 204  |
| Laboratory Facilities ... ..                                                        | 204  |
| Treatment Centres ... ..                                                            | 204  |
| Arsenobenzene Compounds ... ..                                                      | 209  |
| Educational and Propaganda Work ... ..                                              | 209  |
| Public Health and Social Hygiene Education ... ..                                   | 209  |
| Lectures ... ..                                                                     | 210  |



CONTENTS—*continued.*

|                                                                                         | PAGE |
|-----------------------------------------------------------------------------------------|------|
| MATERNITY AND CHILD WELFARE ... ..                                                      | 212  |
| Midwives Acts, 1902-1926 ... ..                                                         | 212  |
| Roll of Midwives ... ..                                                                 | 212  |
| Medical Help Records ... ..                                                             | 213  |
| Payment of Doctors' Fees; Stillbirths ... ..                                            | 214  |
| Summary of Records from Midwives; Confinements attended by Certified Midwives ... ..    | 214  |
| Puerperal Fever and Puerperal Pyrexia ... ..                                            | 215  |
| Special Assistance under the Puerperal Fever, &c. Regulations—Consultants... ..         | 216  |
| Ophthalmia Neonatorum; Special Assistance under the Ophthalmia, &c., Regulations ... .. | 217  |
| Disciplinary measures ... ..                                                            | 218  |
| Supervision of Midwives... ..                                                           | 218  |
| Grants, &c., District Nursing Associations ... ..                                       | 218  |
| Uncertified Women acting as Midwives ... ..                                             | 219  |
| Maternal Mortality ... ..                                                               | 219  |
| The Nursing Homes Registration Act, 1927 ... ..                                         | 220  |
| Maternity and Child Welfare Work ... ..                                                 | 221  |
| County Council Child Welfare Scheme ... ..                                              | 221  |
| Work of County Health Visitors ... ..                                                   | 222  |
| County Child Welfare Centres ... ..                                                     | 222  |
| Supply of Milk and other Foodstuffs ... ..                                              | 226  |
| Ante-Natal Care ... ..                                                                  | 227  |
| Provision for Maternity Cases ... ..                                                    | 229  |
| Care of Debilitated Children under School Age ... ..                                    | 229  |
| Local Child Welfare Schemes ... ..                                                      | 231  |
| Local Child Welfare Centres ... ..                                                      | 231  |
| Ante-Natal Work ... ..                                                                  | 233  |
| Obstetric Consultants ... ..                                                            | 234  |
| Supply of Milk and Foodstuffs ... ..                                                    | 234  |
| Maternity Homes ... ..                                                                  | 234  |
| Orthopædic Treatment ... ..                                                             | 234  |
| County Scheme: Crippling Defects and Orthopædies ... ..                                 | 234  |
| Local Schemes ... ..                                                                    | 239  |
| BLIND PERSONS ACT, 1920 ... ..                                                          | 239  |
| THE SHOPS ACTS, 1912-1930 ... ..                                                        | 247  |

## BOROUGHs AND URBAN DISTRICTS

## COMPARATIVE STATISTICS—

| PAGE                             | PAGE                            | PAGE                             |
|----------------------------------|---------------------------------|----------------------------------|
| Abram ..... 251                  | Grange-over-Sands ..... 257     | Oswaldtwistle ..... 264          |
| Aecrington Borough ..... 251     | Great Crosby ..... 257          | Padiham ..... 264                |
| Adlington ..... 251              | Great Harwood ..... 258         | Poulton-le-Fylde ..... 264       |
| Ashton-in-Makerfield ..... 251   | Haslingden Borough ..... 258    | Preesall ..... 264               |
| Ashton-under-Lyne Borough... 251 | Haydock ..... 258               | Prescot ..... 264                |
| Aspull ..... 252                 | Heywood Borough ..... 258       | Prestwich ..... 265              |
| Atherton ..... 252               | Hindley ..... 258               | Radcliffe ..... 265              |
| Audenshaw ..... 252              | Horwich ..... 259               | Rainford ..... 265               |
| Baeup Borough ..... 252          | Huyton-with-Roby ..... 259      | Ramsbottom ..... 265             |
| Barrowford ..... 252             | Ince-in-Makerfield ..... 259    | Rawtenstall Borough ..... 265    |
| Billinge and Winstanley..... 253 | Irlam ..... 259                 | Rishton ..... 266                |
| Blackrod ..... 253               | Kearsley ..... 259              | Royton ..... 266                 |
| Brierfield ..... 253             | Kirkham ..... 260               | Skelmersdale ..... 266           |
| Carnforth ..... 253              | Lancaster Borough ..... 260     | Standish-with-Langtree ..... 266 |
| Chadderton ..... 253             | Lees ..... 260                  | Stretford Borough ..... 266      |
| Chorley Borough ..... 254        | Leigh Borough ..... 260         | Swinton and Pendlebury ..... 267 |
| Church ..... 254                 | Leyland..... 260                | Thornton Cleveleys..... 267      |
| Clayton-le-Moors ..... 254       | Litherland ..... 261            | Tottington ..... 267             |
| Clitheroe Borough ..... 254      | Littleborough ..... 261         | Trawden ..... 267                |
| Colne Borough ..... 254          | Little Hulton ..... 261         | Turton ..... 267                 |
| Crompton ..... 255               | Little Lever ..... 261          | Tyldesley ..... 268              |
| Croston ..... 255                | Longridge ..... 261             | Ulverston ..... 268              |
| Dalton-in-Furness ..... 255      | Lytham Saint Anne's Borough 262 | Upholland..... 268               |
| Darwen Borough ..... 255         | Middleton Borough ..... 262     | Urmston ..... 268                |
| Denton ..... 255                 | Milnrow..... 262                | Walton-le-Dale ..... 268         |
| Droylsden ..... 256              | Morecambe and Heysham           | Wardle ..... 269                 |
| Eccles Borough ..... 256         | Borough ..... 262               | Waterloo-with-Seaforth ..... 269 |
| Failsworth ..... 256             | Mossley Borough ..... 262       | Westhoughton ..... 269           |
| Farnworth ..... 256              | Nelson Borough ..... 263        | Whitefield ..... 269             |
| Fleetwood Borough..... 256       | Newton-in-Makerfield ..... 263  | Whitworth ..... 269              |
| Fornby ..... 257                 | Norden ..... 263                | Widnes Borough ..... 270         |
| Fulwood ..... 257                | Ormskirk ..... 263              | Withnell ..... 270               |
| Golborne ..... 257               | Orrell ..... 263                | Worsley..... 270                 |

## RURAL DISTRICTS

## COMPARATIVE STATISTICS—

| PAGE                         | PAGE                | PAGE                      |
|------------------------------|---------------------|---------------------------|
| Barton-upon-Irwell ..... 271 | Fylde ..... 272     | Preston ..... 273         |
| Blackburn..... 271           | Garstang ..... 272  | Ulverston ..... 273       |
| Burnley ..... 271            | Lancaster ..... 272 | Warrington ..... 273      |
| Bury ..... 271               | Leigh ..... 272     | West Lancashire ..... 274 |
| Chorley ..... 271            | Limehurst ..... 273 | Whiston ..... 274         |
| Clitheroe ..... 272          | Lunesdale ..... 273 | Wigan ..... 274           |

## ADMINISTRATIVE COUNTY

|                                                           | PAGE |
|-----------------------------------------------------------|------|
| AGGREGATES OF URBAN AND RURAL DISTRICTS AND COUNTY ... .. | 275  |
| METEOROLOGICAL TABLES ... ..                              | 276  |



# PUBLIC HEALTH AND HOUSING COMMITTEE (1934).

## The Chairman of the County Council :

\* SIR JAMES TRAVIS-CLEGG, J.P., D.L.

## The Vice-Chairman of the County Council :

\* W. HODGSON, Esq., J.P.

## Chairman of Committee :

\* W. HODGSON, Esq., J.P.

## Vice-Chairman :

\* C. J. TRIMBLE, Esq., C.B., C.M.G., L.R.C.P., L.R.C.S.I., D.P.H., J.P., D.L.

(\* County Aldermen)

## County Aldermen :

|                                                 |                                         |
|-------------------------------------------------|-----------------------------------------|
| J. C. BECKITT, Esq., M.R.C.S., L.R.C.P., D.P.H. | R. DIXON, Esq., J.P.                    |
| E. BOOTHMAN, Esq., J.P.                         | Rev. A. M. MITCHELL, M.A.               |
| A. S. BURY, Esq., J.P.                          | J. W. WATTERSON, Esq., M.B., C.M., J.P. |

## County Councillors :

|                                        |                                      |
|----------------------------------------|--------------------------------------|
| L. ALLEN, Esq., J.P.                   | W. J. LUCAS, Esq., J.P.              |
| T. BILLINGTON, Esq.                    | P. F. MANNIX, Esq., M.D., M.S., J.P. |
| J. W. DEARDEN, Esq.                    | A. E. NAYLOR, Esq.                   |
| F. H. DODD, Esq.                       | R. S. SCHOFIELD, Esq., J.P.          |
| Mrs. K. M. FLETCHER, J.P.              | Sir T. S. TOMLINSON, J.P.            |
| R. B. GLOVER, Esq.                     | E. TYE, Esq.                         |
| W. HIGENBOTTAM, Esq., J.P.             | Miss C. WHITEHEAD, J.P.              |
| G. E. HOLLAND, Esq., J.P.              | B. WIMPENNY, Esq.                    |
| H. F. JEFFERY, Esq., M.B., Ch.B., J.P. | J. WOOLFENDEN, Esq.                  |
| T. KERSHAW, Esq.                       | Lady A. F. P. WORSLEY-TAYLOR, J.P.   |

# MIDWIVES ACT COMMITTEE (1934).

## The Chairman of the County Council :

\* SIR JAMES TRAVIS-CLEGG, J.P., D.L.

## The Vice-Chairman of the County Council :

\* W. HODGSON, Esq., J.P.

## Chairman of Committee :

\* J. C. BECKITT, Esq., M.R.C.S., L.R.C.P., D.P.H.

## Vice-Chairman :

H. F. JEFFERY, Esq., M.B., Ch.B., J.P.

(\* County Aldermen)

## County Aldermen :

|                                                                                |                                         |
|--------------------------------------------------------------------------------|-----------------------------------------|
| C. J. TRIMBLE, Esq., C.B., C.M.G., L.R.C.P.,<br>L.R.C.S.I., D.P.H., J.P., D.L. | J. W. WATTERSON, Esq., M.B., C.M., J.P. |
|--------------------------------------------------------------------------------|-----------------------------------------|

## County Councillors :

|                                      |                                    |
|--------------------------------------|------------------------------------|
| J. M. CONDREN, Esq.                  | Miss C. WHITEHEAD, J.P.            |
| Mrs. K. M. FLETCHER, J.P.            | Mrs. J. WILDE.                     |
| P. F. MANNIX, Esq., M.D., M.S., J.P. | Lady A. F. P. WORSLEY-TAYLOR, J.P. |
| Sir T. S. TOMLINSON, J.P.            |                                    |



# REPORT OF THE MEDICAL OFFICER OF HEALTH

For the Year ended December 31st, 1933.



*To the County Council of the County Palatine of Lancaster.*

I have the honour to submit for your consideration the forty-fifth annual report on the health, sanitary condition and circumstances of the Administrative County of Lancaster for the year ended 31st December, 1933, which includes references to the steps taken in the County for the maintenance and development of public health work, and the vital statistics for the year under report.

Annual Reports.—The Ministry of Health Circular 1346, dated 2nd October, 1933, directed that annual reports of District Medical Officers of Health for the year 1933 should be “ordinary” reports and not “survey” reports.

Information is required in regard to matters specified in the following six main heads, viz. :—

- 1.—Statistics and social conditions of the area ;
- 2.—General provision of health services for the area ;
- 3.—Sanitary circumstances of the area ;
- 4.—Housing ;
- 5.—Inspection and supervision of food ; and
- 6.—Prevalence of, and control over, infectious and other diseases.

The reports should also contain a record of alterations, improvements or developments which have taken place during the year.

To assist local Medical Officers of Health in the Administrative County in the preparation of their annual reports, and to ensure some measure of uniformity, a Summary Form containing all the requirements of the Ministry, and other items of public health interest, was again prepared in the County Public Health Department, and from these summaries much of the information given in this report is extracted.

The County report for 1933, in the main, follows on the lines of previous reports ; it reviews the progressive development of the public health services, Local and County, presents by text and tables a record of work done during the year, and contains the usual County and District vital statistics, records of notifications of infectious diseases, tabulations of sanitary work accomplished, etc.

Notwithstanding the economic position of the Country it has been generally recognised and accepted that the maintenance of an efficient public health service is a matter of national importance, and an examination of the local reports shows perhaps a limited, but a progressive development of the essential health services. In some areas the prevailing local conditions may have delayed the carrying out of improvement schemes or extensions of existing services. On the other hand the crisis has inspired inquiries made with a view to the avoidance of overlapping services.

Close co-operation between the health departments of the County Council and the Local Authorities continues, and there is now closer administrative relation between public health and the medical services previously administered by the Poor Law Authorities.

During the year under review the County Public Health Staff continued and completed the inspection of County areas for the purposes of the review of districts by the Parliamentary Committee under the Local Government Act, 1929. Special features of the year's work which may be mentioned here were :—Assistance rendered to Local Authorities in the preparation of their housing programmes, the survey of the hospital accommodation in the County for the treatment of infectious diseases, and the investigations made into the position of the County Rural districts in regard to water supplies.



## STATISTICS AND SOCIAL CONDITIONS OF THE COUNTY.

**Area of Administrative County.**—The area of the Administrative County as constituted on the 31st December, 1933, was 1,044,612 statute acres.

Review of County Districts.—Under Section 46 of the Local Government Act, 1929, the County Council has undertaken the first general review of districts. The alterations effected in the years 1931 and 1932 by the review were given in the County health reports for those years. During 1933, two additional Review Orders became operative, viz., the Lancashire (Manchester and District) Review Order, 1933, and the Lancashire (Southern Areas) Review Order, 1933, and in addition, boundary alterations were effected in 1933 by the Cheshire and Lancashire Provisional Order, 1932, the Bury Corporation Act, 1932, and the Warrington Extension Act, 1932.

The alterations which became operative during the year 1933 are set out in the following statement :—

| Date Act or Order became operative. | DISTRICT.              |     |     |   | ALTERATIONS. |              |                                                       | Former Area (Acres). | Area at 31/12/1933 (Acres). |
|-------------------------------------|------------------------|-----|-----|---|--------------|--------------|-------------------------------------------------------|----------------------|-----------------------------|
|                                     |                        |     |     |   |              | Area (Acres) | Pop'n.                                                |                      |                             |
| 1933.                               |                        |     |     |   |              |              |                                                       |                      |                             |
| October 1                           | Ashton-in-Makerfield   | ... | ... | + | 16           | —            | From Haydock.                                         | 6,251                | 6,267                       |
| April 1                             | Chadderton             | ... | ... | + | 9            | 107          | From Middleton (B).                                   |                      |                             |
|                                     |                        |     |     | + | 18.30        | —            | From Manchester C.B.                                  |                      |                             |
|                                     |                        |     |     | — | 77           | 64           | To Middleton (B).                                     |                      |                             |
|                                     |                        |     |     | — | 17.75        | 4            | To Manchester C.B.                                    | 3,082                | 3,014.55                    |
| April 1                             | Denton                 | ... | ... | — | 1.25         | —            | To Manchester C.B.                                    | 2,594                | 2,592.75                    |
| April 1                             | Droylsden              | ... | ... | + | 4.47         | 130          | From Manchester C.B.                                  |                      |                             |
|                                     |                        |     |     | — | 3.68         | 100          | To Manchester C.B.                                    | 1,009                | 1,009.79                    |
| April 1                             | Eccles (B)             | ... | ... | + | 1,281        | 130          | From Barton R.D. (part of Barton Moss).               |                      |                             |
| April 1                             | Failsworth             | ... | ... | + | 79           | 336          | From Worsley.                                         | 2,057                | 3,417                       |
|                                     |                        |     |     | + | 3.59         | Nil.         | From Manchester C.B.                                  |                      |                             |
|                                     |                        |     |     | — | 3.30         | 14           | To Manchester C.B.                                    | 1,072                | 1,072.29                    |
| October 1                           | Golborne               | ... | ... | + | 1,686        | 259          | From Leigh R.D.                                       |                      |                             |
|                                     |                        |     |     |   |              |              | Kenyon.                                               |                      |                             |
|                                     |                        |     |     | + | 1,830        | 3,852        | Lowton.                                               |                      |                             |
|                                     |                        |     |     | + | 2,353        | 2,345        | Part of Culeheth.                                     | 1,679                | 7,548                       |
| October 1                           | Haydock                | ... | ... | — | 16           | Nil.         | To Ashton-in-Makerfield.                              | 2,411                | 2,395                       |
| April 1                             | Heywood (B)            | ... | ... | + | 380          | 42           | From Bury R.D. (part of Unsworth).                    |                      |                             |
| October 1                           | Do.                    | ... | ... | + | 2,533        | 45           | From Norden.                                          |                      |                             |
|                                     |                        |     |     | + | 1,955        | 557          | From Bury R.D. (part of Birtle-cum-Bamford).          |                      |                             |
| April 1                             | Irlam                  | ... | ... | — | 1.50         | Nil.         | To Bury C.B.                                          | 3,658                | 8,524.50                    |
|                                     |                        |     |     | + | 0.43         | Nil.         | From Worsley.                                         |                      |                             |
|                                     |                        |     |     | — | 0.23         | Nil.         | To Worsley.                                           | 4,717                | 4,717.20                    |
| April 1                             | Kearsley               | ... | ... | + | 150          | 200          | From Barton R.D. (part of Clifton).                   |                      |                             |
|                                     |                        |     |     | + | 756          | 157          | From Bury R.D. (part of Outwood).                     | 1,004                | 1,910                       |
| April 1                             | Little Hulton          | ... | ... | — | 1,699        | 7,975        | Amalgamated with Worsley.                             | 1,699                | —                           |
| April 1                             | Middleton (B)          | ... | ... | + | 77           | 64           | From Chadderton.                                      |                      |                             |
|                                     |                        |     |     | + | 2.95         | —            | From Manchester C.B.                                  |                      |                             |
|                                     |                        |     |     | + | 327          | 46           | From Bury R.D. (part of Unsworth).                    |                      |                             |
|                                     |                        |     |     | — | 9            | 107          | To Chadderton.                                        |                      |                             |
|                                     |                        |     |     | — | 1.83         | —            | To Royton.                                            |                      |                             |
|                                     |                        |     |     | — | 2.38         | —            | To Manchester C.B.                                    | 4,775                | 5,168.74                    |
| October 1                           | Norden                 | ... | ... | — | 2,533        | 45           | To Heywood (B).                                       |                      |                             |
| April 1                             | Prestwich              | ... | ... | — | 2,825        | 4,303        | To Rochdale C.B.                                      | 5,358                | —                           |
|                                     |                        |     |     | — | 28           | —            | To Swinton and Pendlebury.                            | 2,448                | 2,420                       |
| October 1                           | Radcliffe              | ... | ... | + | 380          | 541          | From Bury R.D. (part of Outwood).                     |                      |                             |
|                                     |                        |     |     | + | 1,460        | 2,122        | From Bury R.D. (part of Ainsworth).                   |                      |                             |
|                                     |                        |     |     | + | 24           | —            | From Bury C.B.                                        |                      |                             |
|                                     |                        |     |     | — | 43           | 50           | To Bury C.B.                                          | 3,082                | 4,903                       |
| October 1                           | Ramsbottom             | ... | ... | + | 3,138.15     | 601          | From Bury R.D. (part of Walmersley-cum-Shuttleworth). |                      |                             |
| April 1                             | Royton                 | ... | ... | + | 1.83         | —            | From Middleton (B).                                   | 6,423                | 9,561.15                    |
|                                     |                        |     |     |   |              |              |                                                       | 2,147                | 2,148.83                    |
| April 1                             | Stretford              | ... | ... | + | 298          | 26           | From Barton R.D. (part of Davyhulme).                 |                      |                             |
| April 1                             | Swinton and Pendlebury | ... | ... | — | 5            | —            | To Urmston                                            | 3,240                | 3,533                       |
|                                     |                        |     |     | + | 28           | —            | From Prestwich.                                       |                      |                             |
|                                     |                        |     |     | + | 1,045        | 2,730        | From Barton R.D. (part of Clifton).                   | 2,284                | 3,357                       |

| Date Act<br>or Order<br>became<br>operative. | DISTRICT.                 | ALTERATIONS. |                  |        |                                                            | Former<br>Area<br>(Acres). | Area<br>at<br>31/12/1933<br>(Acres). |
|----------------------------------------------|---------------------------|--------------|------------------|--------|------------------------------------------------------------|----------------------------|--------------------------------------|
|                                              |                           |              | Area<br>(Acres). | Pop'n. |                                                            |                            |                                      |
| October 1                                    | Tottington ... ..         | —            | 1·50             | —      | To Bury C.B.                                               | 2,544                      | 2,542·50                             |
| October 1                                    | *Tyldesley-with-Shakerley | +            | 2,685            | 4,584  | From Leigh R.D. (Astley).                                  | 2,490                      | 5,175                                |
| April 1                                      | Urmston ... ..            | +            | 2,361            | 4,073  | From Barton R.D. (part of Davyhulme).                      | 991                        | 4,796                                |
|                                              |                           | +            | 1,439            | 8,523  | From Barton R.D. (Flixton).                                |                            |                                      |
|                                              |                           | +            | 5                | 8      | From Stretford.                                            |                            |                                      |
| April 1                                      | Whitefield ... ..         | +            | 1,043            | 184    | From Bury R.D. (part of Unsworth).                         | 1,403                      | 3,248                                |
|                                              |                           | +            | 802              | 80     | From Bury R.D. (part of Outwood).                          |                            |                                      |
|                                              |                           | +            | 1,699            | 7,975  | Amalgamation of Little Hulton.                             |                            |                                      |
| April 1                                      | Worsley ... ..            | +            | 0·23             | —      | From Irlam.                                                | 5,434                      | 7,241·80                             |
|                                              |                           | +            | 188              | 34     | From Barton R.D. (part of Barton Moss).                    |                            |                                      |
|                                              |                           | —            | 79               | 366    | To Eccles (B).                                             |                            |                                      |
|                                              |                           | —            | 0·43             | —      | To Irlam.                                                  | 6,762                      | —                                    |
| April 1                                      | Barton-upon-Irwell R.D.   | —            | 1,281            | 130    | Part of Barton Moss to Eccles (B).                         |                            |                                      |
|                                              |                           | —            | 188              | 34     | Part of Barton Moss to Worsley.                            |                            |                                      |
|                                              |                           | —            | 150              | 200    | Part of Clifton to Kearsley.                               | 6,762                      | —                                    |
|                                              |                           | —            | 1,045            | 2,730  | Part of Clifton to Swinton and Pendlebury.                 |                            |                                      |
|                                              |                           | —            | 298              | 26     | Part of Davyhulme to Stretford.                            |                            |                                      |
|                                              |                           | —            | 2,361            | 4,073  | Part of Davyhulme to Urmston.                              | 6,762                      | —                                    |
|                                              |                           | —            | 1,439            | 8,523  | Flixton to Urmston.                                        |                            |                                      |
|                                              |                           | —            | 327              | 46     | Part of Unsworth to Middleton (B).                         |                            |                                      |
|                                              |                           | —            | 380              | 42     | Part of Unsworth to Heywood (B).                           | 11,574                     | —                                    |
|                                              |                           | —            | 1,043            | 184    | Part of Unsworth to Whitefield.                            |                            |                                      |
|                                              |                           | —            | 1,217            | 2,189  | Part of Unsworth to Bury C.B.                              |                            |                                      |
|                                              |                           | —            | 756              | 157    | Part of Outwood to Kearsley.                               | 12,017                     | —                                    |
|                                              |                           | —            | 802              | 80     | Part of Outwood to Whitefield.                             |                            |                                      |
| October 1                                    | Do. ... ..                | —            | 380              | 541    | Part of Outwood to Radcliffe.                              |                            |                                      |
|                                              |                           | —            | 1,460            | 2,122  | Ainsworth to Radcliffe.                                    | 12,017                     | —                                    |
|                                              |                           | —            | 1,955            | 557    | Part of Birtle-cum-Bamford to Heywood (B).                 |                            |                                      |
|                                              |                           | —            | 174              | 38     | Part of Birtle-cum-Bamford to Bury C.B.                    |                            |                                      |
|                                              |                           | —            | 282              | 1,024  | Part of Birtle-cum-Bamford to Rochdale C.B.                | 11,574                     | —                                    |
|                                              |                           | —            | 3,138·15         | 601    | Part of Walmersley-cum-Shuttleworth to Ramsbottom.         |                            |                                      |
|                                              |                           | —            | 2·85             | —      | Part of Walmersley-cum-Shuttleworth to Bury C.B.           |                            |                                      |
| October 1                                    | Leigh R.D. ... ..         | —            | 2,685            | 4,584  | Astley to Tyldesley.                                       | 11,574                     | —                                    |
|                                              |                           | —            | 1,686            | 259    | Kenyon to Golborne.                                        |                            |                                      |
|                                              |                           | —            | 1,830            | 3,852  | Lowton to Golborne.                                        |                            |                                      |
|                                              |                           | —            | 2,353            | 2,345  | Part of Culcheth to Golborne                               | 11,574                     | —                                    |
|                                              |                           | —            | 3,020            | 385    | Part of Culcheth to Warrington R.D.                        |                            |                                      |
| April 1                                      | Warrington R.D. ...       | +            | 537              | 26     | To Cuerdley from Norton (Cheshire).                        |                            |                                      |
|                                              |                           | +            | 306              | 20     | To Penketh from Moore (Cheshire).                          | 11,574                     | —                                    |
|                                              |                           | +            | 391              | 6      | To Penketh from Acton Grange (Cheshire).                   |                            |                                      |
|                                              |                           | +            | 68               | —      | To Woolston-with-Martinscroft from Grappenhall (Cheshire). |                            |                                      |
|                                              |                           | +            | 417              | 4      | To Woolston-with-Martinscroft from Thelwall (Cheshire).    | 11,574                     | —                                    |
|                                              |                           | +            | 166              | 4      | To Woolston-with-Martinscroft from Lymm (Cheshire).        |                            |                                      |
|                                              |                           | +            | 41               | —      | To Rixton-with-Glazebrook from Lymm (Cheshire).            |                            |                                      |
|                                              |                           | +            | 2                | —      | To Rixton-with-Glazebrook from Warburton (Cheshire).       |                            |                                      |

\*Tyldesley-with-Shakerley known as Tyldesley from 1st October, 1933.

| Date Act<br>or Order<br>became<br>operative. | DISTRICT.                      | ALTERATIONS. |                  |        |                                                                                                                                                                                                                                                                                                                                                                                                            | Former<br>Area<br>(Acres). | Area<br>at<br>31/12/1933<br>(Acres). |
|----------------------------------------------|--------------------------------|--------------|------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------|
|                                              |                                |              | Area<br>(Acres). | Pop'n. |                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                                      |
| April 1                                      | Warrington R.D.<br>—continued. | ...          | — 47             | —      | Part of Gt. Sankey to Warrington C.B.                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |
|                                              |                                |              | — 178            | 24     | Part of Burtonwood to Warrington C.B.                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |
|                                              |                                |              | — 669            | 1,614  | Part of Winwick-with-Hulme to Warrington C.B.                                                                                                                                                                                                                                                                                                                                                              |                            |                                      |
|                                              |                                |              | — 16             | —      | Part of Woolston-with-Martinscroft to Thelwall (Cheshire).                                                                                                                                                                                                                                                                                                                                                 |                            |                                      |
|                                              |                                |              | — 73             | —      | Part of Rixton-with-Glazebrook to Lymm (Ches.).                                                                                                                                                                                                                                                                                                                                                            |                            |                                      |
|                                              |                                |              | — 74             | —      | Part of Rixton-with-Glazebrook to Warburton (Cheshire).                                                                                                                                                                                                                                                                                                                                                    |                            |                                      |
| October 1                                    | Do.                            | ...          | + 3,020          | 385    | From Leigh R.D. (Part of Culcheth).<br>Boundary alterations <i>within</i> Warrington R.D.—<br>Houghton, Middleton, and Arbury amalgamated with Winwick.<br>Portion of Southworth-with-Croft to Winwick.<br>Winwick-with-Hulme now called <i>Winwick</i> .<br>Portion of Woolston-with-Martinscroft to Southworth-with-Croft renamed <i>Croft</i> .<br>Woolston-with-Martinscroft renamed <i>Woolston</i> . |                            |                                      |
|                                              |                                |              |                  |        |                                                                                                                                                                                                                                                                                                                                                                                                            | 18,955                     | 22,846                               |
|                                              |                                |              |                  |        |                                                                                                                                                                                                                                                                                                                                                                                                            | 123,160                    | 119,409·10                           |
|                                              |                                |              |                  |        |                                                                                                                                                                                                                                                                                                                                                                                                            | 119,409·10                 |                                      |
|                                              |                                |              |                  |        | NETT LOSS TO COUNTY                                                                                                                                                                                                                                                                                                                                                                                        | 3,750·90                   |                                      |

|                                              |     |     |     |     |     |     |     |                |
|----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|----------------|
| Administrative County at 31st December, 1932 | ... | ... | ... | ... | ... | ... | ... | Statute Acres. |
| Less loss as above                           | ... | ... | ... | ... | ... | ... | ... | 1,048,363      |
|                                              |     |     |     |     |     |     |     | 3,750·90       |
| County area after alterations at 31/12/1933  | ... | ... | ... | ... | ... | ... | ... | 1,044,612·10   |

In addition to alterations of district boundaries within the Administrative County itself, the following changes affecting the total acreage of the County area took place during 1933 :—

Areas transferred from County to—

|                     |     |     |     |     |     |     |          |
|---------------------|-----|-----|-----|-----|-----|-----|----------|
| Bury County Borough | ... | ... | ... | ... | ... | ... | Acres.   |
| Manchester          | ... | ... | ... | ... | ... | ... | 1,539·85 |
| Rochdale            | ... | ... | ... | ... | ... | ... | 28·36    |
| Warrington          | ... | ... | ... | ... | ... | ... | 3,107    |
| Cheshire County     | ... | ... | ... | ... | ... | ... | 894      |
|                     |     |     |     |     |     |     | 163      |

5,732·21

Areas added to County from—

|                     |     |     |     |     |     |     |       |
|---------------------|-----|-----|-----|-----|-----|-----|-------|
| Bury County Borough | ... | ... | ... | ... | ... | ... | 24    |
| Manchester          | ... | ... | ... | ... | ... | ... | 29·31 |
| Cheshire County     | ... | ... | ... | ... | ... | ... | 1,928 |

1,981·31

The nett loss to the Administrative County area in 1933 was therefore 3,750·90 statute acres.

The statement below shows the effect on the acreage of the Administrative County from the commencement of the review :

|                               |     |     |     |     |     |     |          |
|-------------------------------|-----|-----|-----|-----|-----|-----|----------|
| Year 1931—Loss to County area | ... | ... | ... | ... | ... | ... | Acres.   |
| „ 1932— „ „ „                 | ... | ... | ... | ... | ... | ... | nil      |
| „ 1933— „ „ „                 | ... | ... | ... | ... | ... | ... | 2,526    |
|                               |     |     |     |     |     |     | 3,750·90 |
|                               |     |     |     |     |     |     | 6,276·90 |



Further alterations and adjustments have been decided upon but did not become effective during the year under report. The changes which became operative on the 1st April, 1934, involved a further loss of area to the County equal to 6,121·69 statute acres.

The following County districts have been abolished as separate local areas :—

|                                  |                     |
|----------------------------------|---------------------|
| Lathom and Burseough (1931).     | Bury Rural (1933).  |
| Little Crosby (1932).            | Norden (1933).      |
| Sefton Rural (1932).             | Leigh Rural (1933). |
| Little Hulton (1933).            | Croston (1934).     |
| Barton-upon-Irwell Rural (1933). |                     |

The Urban districts of Fleetwood and Stretford were incorporated as Municipal Boroughs on the 9th November, 1933.

NOTE.—In the preparation of the tables and statistics throughout this report the necessary adjustments have been made in accord with the alterations of districts under the County Review.

**Population.—Census 1931, and Estimated, 1933.**—The population of the Administrative County as estimated by the Registrar-General to the middle of the year 1933 was 1,802,730. This population relates to the County area *as constituted at the end of the year*.

The Registrar-General, taking into consideration the alteration of areas of County districts as set out on pages 8 to 10, has supplied the following population figures *for the purpose of calculating the birth and death rates for the year 1933* :—Administrative County, 1,807,800 ; urban districts, 1,557,480 ; rural districts, 250,320.

Since the Census, taken on the 26th–27th April, 1931, the Administrative County has sustained a nett loss of population of 9,554 by the transference of territory to Lancashire County Boroughs or the adjoining County of Chester.

Table 2, pages 18 to 25, shows the Census 1931 enumeration of each County district, and the estimated population mid-year 1933.

The following table gives the area, population, persons per acre, and acres per person of the Administrative County *as constituted on the 31st December, 1933*, distributed between the non-county boroughs, urban and rural districts :—

|                                   | Area in Acres,<br>31/12/1933. | Population.      |                                     | Persons<br>per<br>Acre.                | Acres<br>per<br>Person. |
|-----------------------------------|-------------------------------|------------------|-------------------------------------|----------------------------------------|-------------------------|
|                                   |                               | Census,<br>1931. | Estimate of<br>Population,<br>1933. |                                        |                         |
|                                   |                               |                  |                                     | Calculated on<br>estimated population. |                         |
| Municipal Boroughs (21).....      | 102,746                       | 673,453          | 669,349                             | 6·51                                   | 0·15                    |
| Urban Districts (75).....         | 264,679                       | 886,354          | 900,883                             | 3·40                                   | 0·29                    |
| Rural Districts (15).....         | 677,187                       | 225,712          | 232,498                             | 0·34                                   | 2·91                    |
| Administrative County (111) ..... | 1,044,612                     | 1,785,519        | 1,802,730                           | 1·72                                   | 0·57                    |

**Number of inhabited houses (1931), and number of families or separate occupiers (1931).**—The number of private families and dwellings in the Administrative County as constituted at the date of the Census, 1931, (April 26/27), is given in the table below :—

|                       | POPULATION.  |        |          |                         |                                 |                                            |                                                                   |                         |                         |
|-----------------------|--------------|--------|----------|-------------------------|---------------------------------|--------------------------------------------|-------------------------------------------------------------------|-------------------------|-------------------------|
|                       | Census 1931. |        |          |                         |                                 |                                            |                                                                   |                         |                         |
|                       | Persons.     | Males. | Females. | Persons<br>per<br>Acre. | Private Families and Dwellings. |                                            |                                                                   |                         |                         |
|                       |              |        |          |                         | No. of<br>Private<br>Families.  | Popula-<br>tion in<br>Private<br>Families. | Struc-<br>turally<br>Separate<br>Dwell-<br>ings<br>Occu-<br>pied. | Rooms<br>Occu-<br>pied. | Rooms<br>per<br>Person. |
| Urban Districts.....  | 1531112      | 725504 | 805608   | 4·4                     | 399465                          | 1472116                                    | 384845                                                            | 1775688                 | 0·83                    |
| Rural Districts.....  | 263961       | 127604 | 136357   | 0·4                     | 65130                           | 245047                                     | 63832                                                             | 314545                  | 0·78                    |
| Administrative County | 1795073      | 853108 | 941965   | 1·7                     | 464595                          | 1717163                                    | 448677                                                            | 2090233                 | 0·82                    |



**Social conditions, including the chief occupations of the inhabitants, and the influence of environment or any conditions of employment prejudicial to health :—**

OCCUPATION.—The following table shows the occupations by sex of persons aged 14 years and over at the date of the Census (1931) :—

| OCCUPATION.                                                                                                            | Administrative County. |          |
|------------------------------------------------------------------------------------------------------------------------|------------------------|----------|
|                                                                                                                        | Males.                 | Females. |
| Fishermen ... ..                                                                                                       | 2,314                  | 20       |
| Agricultural occupations ... ..                                                                                        | 39,481                 | 3,060    |
| Mining and Quarrying occupations ... ..                                                                                | 56,751                 | 1,736    |
| Workers in the Treatment of Non-Metalliferous Mine and Quarry products ... ..                                          | 982                    | 255      |
| Makers of Bricks, Pottery, and Glass ... ..                                                                            | 1,793                  | 250      |
| Workers in Chemical Processes ; Makers of Paints, Oils, &c. ... ..                                                     | 3,330                  | 260      |
| Metal Workers (not Electro Plate or Precious Metals) ... ..                                                            | 56,825                 | 1,549    |
| Workers in Precious Metals and Electro Plate ... ..                                                                    | 167                    | 50       |
| Electric Apparatus Makers and Fitters (not elsewhere enumerated) and Electricians ... ..                               | 7,975                  | 1,364    |
| Makers of Watches, Clocks, and Scientific Instruments ... ..                                                           | 520                    | 33       |
| Workers in Skins and Leather, and makers of Leather and Leather Substitute Goods (not Boots or Shoes) ... ..           | 2,032                  | 738      |
| Textile Workers ... ..                                                                                                 | 79,448                 | 150,991  |
| Makers of Textile Goods and Articles of Dress ... ..                                                                   | 11,181                 | 18,012   |
| Makers of Foods, Drinks, and Tobacco ... ..                                                                            | 6,035                  | 5,688    |
| Workers in Wood and Furniture ... ..                                                                                   | 17,932                 | 447      |
| Makers of and Workers in Paper and Cardboard, Bookbinders, &c....                                                      | 2,406                  | 2,411    |
| Printers and Photographers ... ..                                                                                      | 4,466                  | 1,140    |
| Builders, Bricklayers, Stone and Slateworkers ; Contractors ... ..                                                     | 26,133                 | 31       |
| Painters and Decorators ... ..                                                                                         | 7,638                  | 389      |
| Workers in other Materials ... ..                                                                                      | 2,441                  | 1,054    |
| Workers in Mixed or Undefined Materials (not elsewhere enumerated)                                                     | 2,100                  | 171      |
| Persons employed in Transport and Communication ... ..                                                                 | 48,010                 | 1,940    |
| Commercial, Finance, and Insurance occupations (excluding Clerks)                                                      | 59,063                 | 24,611   |
| Persons employed in Public Administration and Defence (excluding Professional Men, Clerical Staff, and Typists) ... .. | 5,350                  | 83       |
| Professional occupations (excluding Clerical Staff) ... ..                                                             | 14,088                 | 15,087   |
| Persons professionally engaged in Entertainments and Sport... ..                                                       | 3,156                  | 556      |
| Persons engaged in Personal Service (including Institutions, Clubs, Hotels, &c.) ... ..                                | 13,644                 | 54,093   |
| Clerks and Draughtsmen ; Typists ... ..                                                                                | 31,808                 | 17,913   |
| Warehousemen, Storekeepers, and Packers ... ..                                                                         | 14,975                 | 7,428    |
| Stationary Engine Drivers, Dynamo and Motor Attendants... ..                                                           | 9,034                  | 48       |
| Other and undefined workers ... ..                                                                                     | 79,211                 | 15,130   |
| Retired or not gainfully occupied ... ..                                                                               | 59,526                 | 434,300  |

Social conditions. Effect of unemployment, &c.—The social results of the prolonged and widespread unemployment and industrial depression are almost impossible to estimate at the present time. So many factors necessarily enter into the scientific consideration of the problem ; the mortality returns, sickness rates, particularly the principal constitutional diseases, the division of these statistics amongst the unemployed and their families, and the population which has enjoyed regular employment, the improvement in general environmental conditions, the extension of the social services, and numerous other factors must be given their due weight.

Many district Medical Officers of Health comment on this subject, examples of which are given below :—

Abram.—Men who have been out of work for a considerable period become weaker in physique and in staying power.

Barrowford.—There is no evidence from the figures at the disposal of the public health office which would show that unemployment has exercised any significant influence in the health or physique of adults or children.

Golborne.—As observed at child welfare centres a number of mothers would appear to undergo sacrifice themselves rather than let their children go short.

Haslingden (B).—As regards unemployment, the last figures available revealed that 23 per cent. of the insured population were unemployed, but there has been no evidence of unemployment having had any serious detrimental effect upon the health of the inhabitants of the community.

Kirkham.—From personal observations continued unemployment and consequent worry affects the nervous stability of some, others on the contrary have benefited physically by absence from the mills where conditions are not favourable to robust health.

Padiham.—The increase in the infantile mortality rate is very regrettable, especially on account of the falling birth rate, and one is forced to wonder whether lack of proper nourishment consequent on the large amount of unemployment has not reacted on the health of the expectant mother. The effects of the large amount of unemployment in the district are not shown by the apparently healthy condition of the young children but rather one must point to the poor parents, especially the mothers who sacrifice their own needs so that their children can be clothed and fed to the best of their ability. This unemployment always reacts on the health of the community owing to the consequent lack of proper nourishment. Little wonder that such diseases as cancer and influenza are taking such a toll of human life when one considers how parents and especially the mothers are undernourished and undergo semi-starvation so that their children may be clothed and fed.

Prestwich.—Notwithstanding depressions in trade and the numbers out of work, the health on the whole has been fairly well maintained, especially is this the case of the children whose needs are well looked after by the welfare centre in the district.

Radeliffe.—There is no evidence, as a result of the medical inspection of school children, or at the ante-natal and child welfare centre, to show that unemployment has exercised any significant influence on the health or physical condition of children in the town.

Royton.—Both adults and children appear to be improved, the former probably through rest, the latter through assistance.

Standish-with-Langtree.—The health and physique of the child has deteriorated. During the year minor ailments such as boils, sores, and cases of malnutrition have been met with.

Thornton Cleveleys.—In the latter half of 1933 the Medical Officer of Health examined 63 men, ages 22 to 54 years, all of whom had been unemployed for many months—up to three or four years. They were nearly all definitely undernourished, and many were anæmic. The average weight of the men was 9 lbs. below the normal for their height and age :—

76 per cent. of them were, on the average, 12 lbs. below normal.

11 per cent. of them were more than 20 lbs. below normal.

One man was 33lbs. below his correct weight.

These facts serve to illustrate in some degree the difficult times so many of the unemployed are going through, but it can be recorded that their spirit was unbroken, even, in some cases, after several years without work. The keenness they all showed in passing the tests in order to qualify for the work offered them speaks well for their grit and determination under very adverse conditions.

Withnell.—It is very difficult to ascertain the effects of the economic crisis and widespread depression upon the general health of the population. While there are no cases of actual distress, there is much hardship and undoubted underfeeding, and a general lowering of the standard of living. Adults appear to suffer more than children. There appears to be an increase in digestive troubles and general physical inefficiency, and depressional neuroses are increasingly in evidence. The general physique of the children, however, appears to be fairly satisfactory, and there is no evidence of serious malnutrition in general, isolated cases only being found.

Fylde (R).—There is no evidence that unemployment has exercised any significant influence on the health or physique of children or adults.

Warrington (R).—Children, as judged by observations in many homes and the school attendances, do not appear to have suffered, but it is to be feared that some parents have gone short.

Influence of occupations on health.—Referring to the influence of particular occupations on health, local Medical Officers of Health comment as follows :—

Brierfield.—The prevalence of respiratory diseases is probably due to the chief occupation, viz., cotton weaving.

Chadderton.—Bronchitis and asthma are common affections in those who have worked many years in the cardroom. Trade is still very bad, and the standard of living of many families is very low.

Great Harwood.—The most prevalent disease is chronic pharyngitis.

Haslingden (B).—The humid atmosphere of the cotton mills has an adverse effect on the respiratory system, but apart from that there is no occupation specially injurious to public health.

Irlam.—Fumes, smoke and dust from the steel and iron works, and fumes from the two tar works are the cause of complaints.

Littleborough.—Obnoxious smells are given off by artificial silk works, which are a great source of discomfort but difficult to determine any effects on public health.

Prestwich.—Owing to confinement to offices and warehouses, anæmia and gastric troubles are the main complaints of the majority.



Rishton.—The danger of the transmission of respiratory and infectious diseases by drawing the cotton through the shuttle eyes by mouth suction still persists.

Tottington.—Transient conjunctivitis occurs in some employees of the artificial silk trade.

Urmston.—Fumes, smoke and dust from the electricity generating station are the chief cause of complaint.

Whitworth.—Silicosis amongst quarrymen, bronchitis and asthma in cotton operatives in cardroom.

**Rateable value and sum represented by a penny rate (local purposes).**—The rateable value of the Administrative County area in 1933, according to the figures given in the summary forms supplied by the local medical officers of health, was £9,504,451, and a penny rate would produce £37,050.

### VITAL STATISTICS.\*

**Summary of County Statistics, 1889-1933.**—The following tabular statement compares the County birth and death rates for the year 1933 with the previous year, and with the forty-four years (1889-1932), grouped in quinquennial periods :—

|                                  |     |     |     | PER 1,000 OF POPULATION. |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |
|----------------------------------|-----|-----|-----|--------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|
|                                  |     |     |     | Live Birth-rate          | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |
| Mean of 5 years—                 |     |     |     |                          |            |                                                    |                        |                         |                                         |                                                     |
| 1889-1897 (9 years)              | ... | ... | ... | 29.95                    | 18.47      | †1.31                                              | —                      | —                       | —                                       | 158                                                 |
| 1898-1902 ...                    | ... | ... | ... | 26.98                    | 16.58      | 1.04                                               | —                      | —                       | —                                       | 161                                                 |
| 1903-1907 ...                    | ... | ... | ... | 25.32                    | 14.82      | 0.89                                               | 0.66                   | —                       | —                                       | 138                                                 |
| 1908-1912 ...                    | ... | ... | ... | 23.11                    | 13.96      | 0.85                                               | 0.77                   | —                       | —                                       | 122                                                 |
| 1913-1917 ...                    | ... | ... | ... | 19.75                    | 14.35      | 0.93                                               | 0.99                   | 4.90                    | —                                       | 110                                                 |
| 1918-1922 ...                    | ... | ... | ... | 18.90                    | 13.91      | 0.82                                               | 1.11                   | 5.12                    | —                                       | 91                                                  |
| 1923-1927 ...                    | ... | ... | ... | 15.98                    | 12.44      | 0.66                                               | 1.25                   | 5.26                    | —                                       | 79                                                  |
| 1928-1932 ...                    | ... | ... | ... | 13.99                    | 12.58      | 0.57                                               | 1.43                   | 5.33                    | —                                       | 70                                                  |
| Year                             |     |     |     |                          |            |                                                    |                        |                         |                                         |                                                     |
| 1932...                          | ... | ... | ... | 13.44                    | 12.29      | 0.54                                               | 1.49                   | 4.70                    | 4.45                                    | 67                                                  |
| 1933...                          | ... | ... | ... | 12.89                    | 13.09      | 0.55                                               | 1.48                   | 5.40                    | 5.12                                    | 68                                                  |
| Increase or decrease in 1933 on— |     |     |     |                          |            |                                                    |                        |                         |                                         |                                                     |
| Mean of 5 years 1928-1932        | ... | ... | ... | -1.10                    | +0.51      | -0.02                                              | +0.05                  | +0.07                   | —                                       | -2                                                  |
| Previous Year                    | ... | ... | ... | -0.55                    | +0.80      | +0.01                                              | -0.01                  | +0.70                   | +0.67                                   | +1                                                  |

† Eight years.

\* The death-rates given in this Report, including the general death-rate, the cancer rate, and the maternal mortality rate for the County area and for the County districts, are "unweighted" or "crude" rates, that is, they are neither "standardized" nor "corrected."

**Live Births and Birth-rates.**—The live births registered in or belonging to the Administrative County during the year ended 31st December, 1933, numbered 23,315, compared with 24,329 in the previous year—a decrease of 924. In 1931 the live births numbered 25,014, or 1,699 more than in the year under report.

The sex of the children born alive in 1933 is shown below :—

|                       | Males. | Females. | Total. |
|-----------------------|--------|----------|--------|
| Urban Districts ...   | 10217  | 9917     | 20134  |
| Rural Districts ...   | 1571   | 1610     | 3181   |
| Administrative County | 11788  | 11527    | 23315  |

The male births again exceeded those of females, the excess being equal to 1.11 per cent.; last year this percentage was 1.87, and 2.07 per cent. in 1931.



The following table shows the County, urban, and rural live birth-rates for the year 1933, also the rates for each year in the preceding decennial period. For comparative purposes the birth-rates for the whole country are also given :—

|                                | Live Birth-rate per 1,000 of the Estimated Population. |       |       |       |       |       |       |       |       |       |              |
|--------------------------------|--------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
|                                | 1923.                                                  | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. | 1930. | 1931. | 1932. | 1933.        |
| Urban Districts ...            | 17·42                                                  | 16·62 | 15·99 | 15·66 | 14·59 | 14·64 | 14·08 | 14·07 | 13·90 | 13·50 | <b>12·92</b> |
| Rural Districts ...            | 16·48                                                  | 16·05 | 15·23 | 15·29 | 14·48 | 14·08 | 14·20 | 13·66 | 13·51 | 13·12 | <b>12·70</b> |
| Administrative<br>County ..... | 17·29                                                  | 16·54 | 15·89 | 15·61 | 14·57 | 14·56 | 14·09 | 14·01 | 13·85 | 13·44 | <b>12·89</b> |
| England and<br>Wales .....     | 19·7                                                   | 18·8  | 18·3  | 17·8  | 16·7  | 16·7  | 16·3  | 16·3  | 15·8  | 15·3  | <b>14·4</b>  |

The table on page 17 shows the County and the urban and rural district live birth-rates since 1889 (the first year County statistics were available), and also the five year averages.

The live birth-rate for the Administrative County for the year 1933, calculated per 1,000 of the estimated population was 12·89, the lowest rate on record. The urban and rural rates, 12·92 and 12·70 per 1,000 respectively, are also both below any previously recorded. The extent of the fall in the birth-rate as compared with the preceding year—0·55 per 1,000—is greater than any annual decline since 1927.

The County birth-rate for 1933 is 1·10 per 1,000 below the mean of the five years 1928–1932.

The fall in the birth-rate is in conformity with the general fall in the whole country, but the County rate for 1933 is 1·6 per 1,000 below the rate for England and Wales.

A notable feature of the year's statistics is, that for the first time in the history of the Administrative County—one of the war years excepted—the birth-rate for the whole County area is *lower* than the death-rate.

The fall in the County birth-rate since 1920 is equal to 10·08 per 1,000 of the population, and represents a diminution in the number of births approximating 18,200 per annum, and compared with 1891, there has been a fall of 19·04 per 1,000, equivalent to 34,400 births per annum.

In 62 of the 111 County districts, the birth-rate in 1933 was lower than the death-rate.

The decline in the excess of births over deaths in the Administrative County during recent years is shown in the following statement :—

| Excess of births over deaths |     |        |           |     |       |
|------------------------------|-----|--------|-----------|-----|-------|
| Year 1921                    | ... | 14,976 | Year 1927 | ... | 3,347 |
| „ 1922                       | ... | 8,632  | „ 1928    | ... | 4,803 |
| „ 1923                       | ... | 8,853  | „ 1929    | ... | 186   |
| „ 1924                       | ... | 7,166  | „ 1930    | ... | 3,893 |
| „ 1925                       | ... | 5,781  | „ 1931    | ... | 1,802 |
| „ 1926                       | ... | 6,491  | „ 1932    | ... | 2,072 |

In the year 1933 the deaths *exceeded* the births by 367.

The highest district birth-rates in 1933 were :—Ince-in-Makerfield 20·6, Widnes (B) 18·8, Fleetwood (B) 18·2, Litherland 18·1, Skelmersdale 17·5, Aspull 17·1, Haydock 17·0, Abram and Kirkham each 16·6, Tyldesley 16·2, and Golborne 16·1.

Grange-over-Sands again supplied the lowest birth-rate 3·4 per 1,000 ; other low rates were :—Fulwood 7·9, Lytham-Saint-Anne's (B) 8·1, Croston 8·5, Poulton-le-Fylde 8·6, Clitheroe (R) 8·8, Brierfield 9·0, Trawden 9·1, Morecambe and Heysham (B) 9·2, Accrington (B) 9·5, and Haslingden (B) and Oswaldtwistle each 9·8.

The number of births in each borough, urban and rural district, and the local birth-rates are given in Table 2, pages 18 to 25.

**ILLEGITIMATE BIRTHS.**—The births of illegitimate children registered in 1933 numbered 798, or 36 fewer than in 1932. The percentage to total live births was 3·42, as compared with 3·44 last year, and an average of 3·64 for the five years 1928–1932.

**STILLBIRTHS.**—There were 1,255 stillbirths registered in the Administrative County in 1933, representing 53·8 per 1,000 live births and a rate of 0·69 per 1,000 of the population. The variation of the stillbirth rates in County districts is shown in Table 2.

**Deaths and Death-rates.\***—The total number of deaths registered in the Administrative County during the calendar year 1933, after correction for inward and outward transfers, was 23,682, compared with 22,167 in the year 1932—an increase of 1,515.

The sex distribution of the persons dying in 1933 is shown below :—

|                       |     |     |  |  | Males. |     | Females. |     | Total. |
|-----------------------|-----|-----|--|--|--------|-----|----------|-----|--------|
| Urban Districts       | ... | ... |  |  | 10,199 | ... | 10,455   | ... | 20,654 |
| Rural Districts       | ... | ... |  |  | 1,501  | ... | 1,527    | ... | 3,028  |
| Administrative County | ... |     |  |  | 11,700 |     | 11,982   |     | 23,682 |

|      | Under 1<br>Year. | 1 and<br>under 2. | 2 and<br>under 5. | 5 and<br>under 15. | 15 and<br>under 25. | 25 and<br>under 35. | 35 and<br>under 45. | 45 and<br>under 55. | 55 and<br>under 65. | 65 and<br>under 75. | 75 and<br>upwards | Total. |
|------|------------------|-------------------|-------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|--------|
| 1933 | 1607             | 329               | 368               | 553                | 824                 | 1028                | 1410                | 2587                | 4162                | 5870                | 4944              | 23682  |
| 1932 | 1641             | 352               | 374               | 494                | 789                 | 923                 | 1299                | 2303                | 3979                | 5536                | 4477              | 22167  |

Table 1, here inserted, is a classified statement of the causes of death in 1933, distributed in age groups and distinguishing the sexes, for the aggregate urban and rural districts.

**\*COUNTY DEATH-RATES.**—The 23,682 deaths in 1933 give a death-rate of 13.09 per 1,000 of the estimated population—13.26 per 1,000 in the urban districts, and 12.09 in the rural districts. These rates are not “standardized” or “corrected” to allow for the deviation in the sex and age constitution of the population of the County. The County rate for the year under report exceeds the rates for the preceding three years; it is 0.80 per 1,000 above the 1932 rate, and 0.51 above the County mean for the five years 1928–1932; it is 0.7 per 1,000 in excess of the rate for the whole of England and Wales.

The increase in the death-rate in 1933 is mainly due to a re-emergence of influenza and to the continued rise in the deaths certified as due to heart disease; further reference to these increases is made on page 31.

The table below gives the death-rates of the County from 1923 to 1933, distinguishing the urban and rural rates, and also gives the rates for England and Wales :—

|                               | Death-rate per 1,000 of the Estimated Population. |       |       |       |       |       |       |       |       |       |       |
|-------------------------------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                               | 1923.                                             | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. | 1930. | 1931. | 1932. | 1933. |
| Urban Districts...            | 12.44                                             | 12.66 | 12.79 | 12.21 | 12.86 | 12.08 | 14.32 | 12.10 | 13.05 | 12.50 | 13.26 |
| Rural Districts ...           | 11.45                                             | 11.77 | 11.86 | 10.69 | 11.94 | 10.95 | 12.12 | 10.56 | 11.73 | 11.09 | 12.09 |
| Administrative<br>County..... | 12.30                                             | 12.53 | 12.66 | 11.99 | 12.72 | 11.91 | 14.00 | 11.87 | 12.86 | 12.29 | 13.09 |
| England & Wales               | 11.6                                              | 12.2  | 12.2  | 11.6  | 12.3  | 11.7  | 13.4  | 11.4  | 12.3  | 12.0  | 12.3  |

The table on page 17, shows the County, urban and rural death-rates for each year since 1889, and also the quinquennial averages.

Examination of the local death-rates shows that the highest district mortality rates in 1933 were :—Barrowford 18.1, Grange-over-Sands 18.0, Brierfield 16.7, Lytham Saint Anne's (B) 16.4, Whitworth 16.2, Padiham 16.0, Morecambe and Heysham (B) 15.8, Little Lever and Milnrow each 15.7, and Haslingden (B) 15.6.

The annual death-rates of comparatively small areas are subject to considerable fluctuations, and a more reliable average is the mean of a five or ten year period. The following districts in the Administrative County have the highest death-rates over a period of five years, 1929–1933 :—Whitworth 16.1, Grange-over-Sands and Morecambe and Heysham (B) each 15.5, Baeup (B) 15.2, Heywood (B), Lees and Littleborough each 14.9, Haslingden (B) 14.8, Dalton-in-Furness, Royton and Ulverston each 14.7, Longridge and Poulton-le-Fylde each 14.6, and Mossley (B) 14.5. In considering these averages local circumstances must be given due weight, for example, at Grange-over-Sands, the Medical Officer of Health points out that the population comprises only a small proportion of young people, and the mean age at death in the year 1933 was no less than 69 years.

The lowest district death-rates in 1933 were :—Clitheroe (R) 9.0, Rainford 9.2, Prestwich 9.6, Standish-with-Langtree 9.7, Golborne 10.0, Warrington (R) 10.1, Urmston 10.2, Fleetwood (B) 10.3, Great Crosby 10.4, and Whitefield 10.5. Extending over a period of five years, 1929–1933, the following areas had the lowest mortality averages :—Clitheroe (R) 8.7, Warrington (R) 9.4, Rainford 9.9, Whiston (R) 10.0, Great Crosby and Irlam each 10.1, Prestwich 10.2, and Blackburn (R) 10.3.

Details of the deaths in the various sanitary areas, classified under certain headings are given in Tables 2 and 3, pages 18 to 30, and the mortality rates of each district in 1933 are compared on pages 251 to 274, with the year 1932, and with the averages of the preceding five years.

\* See note on page 14.



## ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 1.—CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE DURING THE YEAR ENDED 31ST DECEMBER, 1933.

| CAUSES OF DEATH.                                          | Col. | ADMINIS-<br>TRATIVE<br>COUNTY.<br>TOTAL<br>DEATHS. | Sex.     | AGGREGATE OF URBAN DISTRICTS. |            |            |            |            |            |            |            |              |              |              |              | AGGREGATE OF RURAL DISTRICTS. |           |          |          |          |          |          |          |            |            |            |            |     |   | Col. |
|-----------------------------------------------------------|------|----------------------------------------------------|----------|-------------------------------|------------|------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|--------------|-------------------------------|-----------|----------|----------|----------|----------|----------|----------|------------|------------|------------|------------|-----|---|------|
|                                                           |      |                                                    |          | YEARS.                        |            |            |            |            |            |            |            |              |              |              |              | YEARS.                        |           |          |          |          |          |          |          |            |            |            |            |     |   |      |
|                                                           |      |                                                    |          | All<br>Ages.                  | 0—         | 1—         | 2—         | 5—         | 15—        | 25—        | 35—        | 45—          | 55—          | 65—          | 75—          | All<br>Ages.                  | 0—        | 1—       | 2—       | 5—       | 15—      | 25—      | 35—      | 45—        | 55—        | 65—        | 75—        |     |   |      |
| ALL CAUSES                                                |      | 23682                                              | M.<br>F. | 10199<br>10455                | 788<br>623 | 158<br>142 | 167<br>165 | 258<br>239 | 375<br>339 | 433<br>479 | 607<br>631 | 1223<br>1062 | 1948<br>1733 | 2492<br>2609 | 1750<br>2133 | 1501<br>1527                  | 129<br>67 | 18<br>11 | 18<br>18 | 35<br>21 | 61<br>49 | 60<br>56 | 86<br>86 | 141<br>161 | 222<br>259 | 399<br>370 | 332<br>429 |     |   |      |
| Typhoid and paratyphoid fevers                            | 1    | 11                                                 | M.<br>F. | 6<br>1                        | ...        | ...        | ...        | 1          | 1          | 1          | 1          | 1            | 1            | ...          | ...          | 3<br>1                        | ...       | ...      | ...      | ...      | 1        | 1        | ...      | ...        | ...        | ...        | 1          | ... | 1 |      |
| Measles                                                   | 2    | 59                                                 | M.<br>F. | 31<br>26                      | 7<br>4     | 11<br>10   | 10<br>11   | 2<br>1     | ...        | 1          | ...        | ...          | ...          | ...          | ...          | 1<br>1                        | 1         | ...      | 1        | ...      | ...      | ...      | ...      | ...        | ...        | ...        | ...        | 2   |   |      |
| Scarlet fever                                             | 3    | 31                                                 | M.<br>F. | 10<br>19                      | 1<br>...   | ...        | 3<br>4     | 5<br>7     | 1<br>3     | ...        | ...        | ...          | ...          | ...          | ...          | 2<br>...                      | ...       | ...      | 1        | ...      | 1        | ...      | ...      | ...        | ...        | ...        | ...        | 3   |   |      |
| Whooping cough                                            | 4    | 89                                                 | M.<br>F. | 33<br>45                      | 14<br>22   | 7<br>12    | 12<br>10   | ...        | 1          | ...        | ...        | ...          | ...          | ...          | ...          | 8<br>3                        | 6<br>2    | ...      | 1        | 1        | ...      | ...      | ...      | ...        | ...        | ...        | ...        | 4   |   |      |
| Diphtheria                                                | 5    | 109                                                | M.<br>F. | 38<br>58                      | ...        | 1<br>3     | 10<br>15   | 25<br>33   | ...        | 1<br>3     | 1<br>3     | ...          | ...          | 1            | ...          | 10<br>3                       | ...       | ...      | 4        | 6        | ...      | 1        | ...      | ...        | ...        | ...        | ...        | 5   |   |      |
| Influenza                                                 | 6    | 1227                                               | M.<br>F. | 524<br>538                    | 15<br>7    | 8<br>8     | 5<br>10    | 11<br>7    | 29<br>24   | 45<br>31   | 75<br>43   | 103<br>70    | 91<br>110    | 92<br>122    | 50<br>106    | 75<br>90                      | 1<br>...  | 1<br>1   | ...      | 1        | 1        | 6<br>10  | 10<br>9  | 11<br>10   | 10<br>17   | 19<br>18   | 15<br>21   | 6   |   |      |
| Encephalitis lethargica                                   | 7    | 56                                                 | M.<br>F. | 25<br>22                      | ...        | ...        | ...        | ...        | 4<br>3     | 5<br>3     | 3<br>4     | 5<br>1       | 6<br>5       | 2<br>6       | ...          | 5<br>4                        | ...       | ...      | 1        | ...      | 1        | 1        | ...      | ...        | 1          | 1          | ...        | 7   |   |      |
| Cerebro-spinal fever                                      | 8    | 27                                                 | M.<br>F. | 16<br>9                       | 3<br>3     | ...        | ...        | 3<br>2     | 8<br>...   | 1<br>1     | ...        | ...          | 1            | ...          | ...          | 2<br>...                      | ...       | 1        | ...      | ...      | 1        | ...      | ...      | ...        | ...        | ...        | ...        | 8   |   |      |
| Tuberculosis of respiratory system                        | 9    | 1010                                               | M.<br>F. | 514<br>395                    | ...        | 1<br>...   | ...        | 7<br>15    | 79<br>117  | 93<br>117  | 109<br>62  | 115<br>38    | 83<br>27     | 24<br>18     | 3<br>1       | 59<br>42                      | ...       | ...      | ...      | 1        | 11<br>9  | 15<br>8  | 10<br>7  | 10<br>11   | 9<br>2     | 3<br>1     | ...        | 9   |   |      |
| Other tuberculous diseases                                | 10   | 232                                                | M.<br>F. | 106<br>97                     | 8<br>3     | 14<br>7    | 14<br>11   | 16<br>16   | 15<br>18   | 18<br>15   | 3<br>9     | 3<br>9       | 8<br>4       | 7<br>4       | ...          | 13<br>16                      | 1<br>...  | 3<br>2   | 1<br>3   | 3<br>3   | 1<br>2   | ...      | 1<br>2   | 1<br>2     | ...        | 1<br>1     | ...        | 10  |   |      |
| Syphilis                                                  | 11   | 45                                                 | M.<br>F. | 19<br>22                      | 2<br>8     | 3<br>...   | 1<br>...   | ...        | 1<br>...   | ...        | 5<br>2     | 2<br>5       | ...          | ...          | ...          | 2<br>2                        | 1         | ...      | ...      | ...      | ...      | ...      | ...      | 1<br>1     | ...        | ...        | ...        | 11  |   |      |
| General paralysis of the insane, tabes dorsalis           | 12   | 91                                                 | M.<br>F. | 64<br>18                      | ...        | ...        | ...        | ...        | ...        | ...        | 13<br>6    | 14<br>7      | 25<br>2      | 10<br>1      | 2<br>...     | 8<br>1                        | ...       | ...      | ...      | ...      | 1        | 1        | 3        | 2          | 1          | ...        | ...        | 12  |   |      |
| Cancer, malignant disease                                 | 13   | 2689                                               | M.<br>F. | 1095<br>1249                  | ...        | ...        | 1<br>3     | ...        | 2<br>7     | 10<br>19   | 33<br>101  | 156<br>223   | 351<br>348   | 406<br>379   | 136<br>168   | 156<br>189                    | ...       | ...      | ...      | 2<br>1   | ...      | 2<br>1   | 7<br>8   | 26<br>31   | 32<br>57   | 59<br>60   | 28<br>31   | 13  |   |      |
| Diabetes                                                  | 14   | 310                                                | M.<br>F. | 92<br>165                     | ...        | ...        | ...        | 3<br>5     | 6<br>3     | 5<br>8     | 5<br>5     | 6<br>14      | 23<br>40     | 30<br>69     | 14<br>19     | 19<br>34                      | ...       | ...      | ...      | 1        | 2<br>2   | ...      | ...      | 2<br>6     | 5<br>11    | 8<br>8     | 1<br>4     | 14  |   |      |
| Cerebral hæmorrhage, etc.                                 | 15   | 1396                                               | M.<br>F. | 526<br>686                    | ...        | ...        | 1<br>...   | ...        | ...        | 1<br>3     | 2<br>7     | 51<br>76     | 138<br>136   | 199<br>261   | 122<br>203   | 80<br>104                     | ...       | ...      | ...      | 1        | ...      | ...      | 2<br>1   | 5<br>11    | 12<br>21   | 36<br>37   | 25<br>33   | 15  |   |      |
| Heart disease                                             | 16   | 5232                                               | M.<br>F. | 2114<br>2379                  | ...        | ...        | 2<br>1     | 13<br>21   | 25<br>41   | 42<br>46   | 77<br>93   | 226<br>209   | 447<br>446   | 755<br>774   | 527<br>748   | 339<br>400                    | ...       | ...      | ...      | 2<br>1   | 5<br>4   | 4<br>8   | 6<br>10  | 25<br>31   | 60<br>79   | 132<br>121 | 105<br>145 | 16  |   |      |
| Aneurysm                                                  | 17   | 26                                                 | M.<br>F. | 17<br>6                       | ...        | ...        | ...        | ...        | ...        | 1<br>...   | 1<br>1     | 4<br>1       | 4<br>2       | 7<br>1       | ...          | 2<br>1                        | ...       | ...      | ...      | ...      | ...      | ...      | 1        | ...        | ...        | ...        | ...        | 17  |   |      |
| Other circulatory diseases                                | 18   | 1228                                               | M.<br>F. | 538<br>528                    | ...        | ...        | ...        | 1<br>...   | ...        | 1<br>2     | 5<br>2     | 19<br>25     | 92<br>75     | 210<br>188   | 210<br>232   | 89<br>73                      | ...       | ...      | ...      | ...      | ...      | ...      | 1        | 18         | 34         | 35         | ...        | 18  |   |      |
| Bronchitis                                                | 19   | 1159                                               | M.<br>F. | 476<br>556                    | 46<br>36   | 8<br>5     | 2<br>5     | 4<br>...   | 6<br>3     | 10<br>9    | 13<br>10   | 51<br>32     | 69<br>68     | 134<br>184   | 133<br>201   | 57<br>70                      | 9<br>3    | 1<br>... | ...      | ...      | ...      | ...      | 1        | 3          | 6          | 13         | 24         | 19  |   |      |
| Pneumonia (all forms)                                     | 20   | 1367                                               | M.<br>F. | 692<br>535                    | 113<br>97  | 66<br>62   | 43<br>49   | 32<br>21   | 32<br>12   | 38<br>26   | 74<br>38   | 97<br>81     | 85<br>78     | 69<br>67     | 43<br>44     | 77<br>63                      | 14<br>7   | 5<br>3   | 3<br>4   | 1<br>2   | 3<br>4   | 4<br>1   | 7<br>9   | 14<br>10   | 13<br>4    | 9<br>9     | 4<br>10    | 20  |   |      |
| Other respiratory diseases                                | 21   | 229                                                | M.<br>F. | 101<br>97                     | 4<br>4     | 1<br>1     | 2<br>5     | 4<br>9     | 3<br>2     | 3<br>8     | 10<br>8    | 25<br>7      | 19<br>14     | 18<br>21     | 12<br>18     | 15<br>16                      | ...       | ...      | ...      | ...      | ...      | 1        | 1        | 4          | 2          | 5          | 2          | 21  |   |      |
| Peptic ulcer                                              | 22   | 168                                                | M.<br>F. | 123<br>22                     | 1<br>...   | ...        | ...        | ...        | 2<br>1     | 7<br>1     | 22<br>5    | 39<br>4      | 42<br>7      | 9<br>3       | 1<br>1       | 19<br>4                       | ...       | ...      | ...      | ...      | 3        | 1        | 5        | 3          | 6          | 1          | ...        | 22  |   |      |
| Diarrhoea, etc.                                           | 23   | 185                                                | M.<br>F. | 84<br>82                      | 48<br>37   | 6<br>8     | 5<br>3     | 3<br>6     | 3<br>...   | 2<br>6     | 2<br>3     | 2<br>3       | 5<br>6       | 5<br>7       | 3<br>3       | 13<br>6                       | 7<br>1    | 1<br>... | ...      | ...      | ...      | 2        | ...      | 1          | ...        | 2          | ...        | 23  |   |      |
| Appendicitis                                              | 24   | 159                                                | M.<br>F. | 73<br>59                      | ...        | ...        | 6<br>2     | 14<br>6    | 8<br>5     | 11<br>5    | 2<br>4     | 8<br>21      | 17<br>7      | 5<br>8       | 2<br>1       | 12<br>15                      | ...       | ...      | ...      | 1        | 2<br>4   | ...      | 2<br>1   | 3<br>3     | 1<br>5     | ...        | 1<br>1     | 24  |   |      |
| Cirrhosis of liver                                        | 25   | 64                                                 | M.<br>F. | 41<br>20                      | ...        | ...        | ...        | ...        | ...        | ...        | 3<br>1     | 8<br>7       | 22<br>7      | 6<br>3       | 2<br>1       | 1<br>2                        | ...       | ...      | ...      | ...      | ...      | ...      | ...      | ...        | 1          | ...        | ...        | 25  |   |      |
| Other diseases of liver, etc.                             | 26   | 154                                                | M.<br>F. | 33<br>106                     | ...        | ...        | ...        | ...        | ...        | 2<br>1     | ...        | 2<br>4       | 15<br>19     | 10<br>36     | 4<br>22      | 6<br>9                        | ...       | ...      | ...      | ...      | ...      | ...      | ...      | 1          | ...        | ...        | ...        | 26  |   |      |
| Other digestive diseases                                  | 27   | 443                                                | M.<br>F. | 185<br>200                    | 18<br>13   | 3<br>2     | 4<br>6     | 9<br>12    | 9<br>5     | 5<br>7     | 12<br>24   | 22<br>27     | 42<br>40     | 36<br>39     | 25<br>25     | 36<br>22                      | 3<br>1    | 1<br>1   | 1<br>1   | 1<br>1   | ...      | 2<br>1   | 3<br>1   | 2<br>1     | 7<br>1     | 10<br>6    | 6<br>6     | 27  |   |      |
| Acute and chronic nephritis                               | 28   | 775                                                | M.<br>F. | 349<br>349                    | ...        | 1<br>1     | ...        | 4<br>5     | 13<br>12   | 8<br>15    | 21<br>29   | 63<br>51     | 90<br>79     | 104<br>104   | 45<br>53     | 35<br>42                      | 1<br>...  | ...      | ...      | ...      | 2<br>3   | 1<br>... | 3<br>3   | 5<br>5     | 8<br>10    | 9<br>15    | 6<br>6     | 28  |   |      |
| Puerperal sepsis                                          | 29   | 39                                                 | F.       | 35                            | ...        | ...        | ...        | ...        | 5          | 17         | 13         | ...          | ...          | ...          | ...          | 4                             | ...       | ...      | ...      | ...      | 1        | 3        | ...      | ...        | ...        | ...        | ...        | 29  |   |      |
| Other puerperal causes                                    | 30   | 87                                                 | F.       | 76                            | ...        | ...        | ...        | ...        | 8          | 44         | 24         | ...          | ...          | ...          | ...          | 11                            | ...       | ...      | ...      | ...      | 7        | 4        | ...      | ...        | ...        | ...        | ...        | 30  |   |      |
| Congenital debility, premature birth, malformations, etc. | 31   | 906                                                | M.<br>F. | 436<br>349                    | 429<br>343 | 3<br>...   | 2<br>1     | 1<br>...   | 1<br>1     | ...        | ...        | ...          | ...          | ...          | ...          | 76<br>45                      | 75<br>42  | ...      | ...      | 1        | ...      | ...      | ...      | ...        | ...        | ...        | ...        | 31  |   |      |
| Senility                                                  | 32   | 1061                                               | M.<br>F. | 379<br>546                    | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...          | 10<br>4      | 100<br>100   | 269<br>442   | 62<br>74                      | ...       | ...      | ...      | ...      | ...      | ...      | ...      | 1<br>3     | 10<br>10   | 51<br>61   | ...        | 32  |   |      |
| Suicide                                                   | 33   | 252                                                | M.<br>F. | 153<br>71                     | ...        | ...        | ...        | ...        | 11<br>7    | 28<br>13   | 15<br>14   | 30<br>10     | 44<br>20     | 19<br>6      | 6<br>1       | 21<br>7                       | ...       | ...      | ...      | ...      | 1        | 3        | 6        | 4          | 4          | 1          | 2          | 33  |   |      |
| Other violence                                            | 34   | 804                                                | M.<br>F. | 441<br>245                    | 8<br>8     | 9<br>9     | 21<br>9    | 40<br>16   | 70<br>18   | 55<br>22   | 37<br>12   | 61<br>20     | 64<br>28     | 39<br>48     | 37<br>55     | 84<br>34                      | 4<br>4    | 2<br>... | 4<br>... | 9<br>3   | 21<br>5  | 11<br>2  | 10<br>2  | 5<br>4     | 5<br>3     | 9<br>8     | 4<br>8     | 34  |   |      |
| *Other defined diseases                                   | 35   | 1879                                               | M.<br>F. | 818<br>817                    | 71<br>36   | 16<br>9    | 23<br>14   | 60<br>51   | 44<br>42   | 36<br>49   | 53<br>99   | 102<br>141   | 141<br>151   | 177<br>149   | 95<br>76     | 110<br>134                    | 6<br>5    | 3<br>3   | 1<br>3   | 4<br>2   | 6<br>8   | 5<br>7   | 10<br>21 | 18<br>21   | 28<br>27   | 19<br>11   | 35         |     |   |      |
| Causes ill-defined, or unknown                            | 36   | 83                                                 | M.<br>F. | 47<br>27                      | ...        | ...        | ...        | ...        | 1<br>...   | 2<br>...   | ...        | 8<br>1       | 8<br>5       | 19<br>11     | 9<br>8       | 6<br>3                        | ...       | ...      | ...      | ...      | ...      | ...      | ...      | 1<br>...   | ...        | 4<br>1     | 1<br>...   | 36  |   |      |

\* Includes—Poliomyelitis, 16 deaths. Polio-encephalitis, 7 deaths.





## ADMINISTRATIVE COUNTY OF LANCASTER.

## COUNTY BIRTH AND DEATH RATES FOR YEARS 1889—1933.

| YEAR.                             | LIVE BIRTH-RATE. |                  |                  | DEATH-RATE.  |                  |                  | INFANT MORTALITY. |                  |                  |
|-----------------------------------|------------------|------------------|------------------|--------------|------------------|------------------|-------------------|------------------|------------------|
|                                   | County.          | Urban Districts. | Rural Districts. | County.      | Urban Districts. | Rural Districts. | County.           | Urban Districts. | Rural Districts. |
| 1889 ... ..                       | 30.5             | 31.8             | 29.6             | 17.5         | 18.4             | 16.6             | 160               | 161              | 125              |
| 1890 ... ..                       | 29.3             | 29.7             | 28.1             | 18.5         | 18.9             | 16.6             | 152               | 158              | 126              |
| 1891 ... ..                       | 31.93            | 32.45            | 29.48            | 21.09        | 21.70            | 18.19            | 157               | 160              | 139              |
| 1892 ... ..                       | 30.70            | 31.11            | 28.01            | 19.00        | 19.34            | 17.31            | 150               | 155              | 124              |
| 1893 ... ..                       | 30.95            | 31.35            | 28.94            | 19.97        | 20.37            | 17.94            | 177               | 183              | 145              |
| 1894 ... ..                       | 29.19            | 29.49            | 27.70            | 16.16        | 16.42            | 14.87            | 134               | 138              | 109              |
| <b>Average 6 years, 1889-1894</b> | <b>30.42</b>     | <b>30.98</b>     | <b>28.63</b>     | <b>18.70</b> | <b>19.18</b>     | <b>16.91</b>     | <b>155</b>        | <b>159</b>       | <b>128</b>       |
| 1895 ... ..                       | 29.82            | 30.23            | 27.57            | 19.16        | 19.63            | 16.57            | 171               | 178              | 127              |
| 1896 ... ..                       | 28.73            | 29.11            | 26.62            | 17.38        | 17.76            | 15.25            | 155               | 161              | 121              |
| 1897 ... ..                       | 28.45            | 28.65            | 27.29            | 17.48        | 17.82            | 15.55            | 169               | 174              | 138              |
| 1898 ... ..                       | 27.62            | 27.89            | 25.80            | 16.58        | 16.80            | 15.09            | 168               | 173              | 130              |
| 1899 ... ..                       | 27.09            | 27.31            | 25.53            | 17.60        | 17.88            | 15.65            | 175               | 181              | 134              |
| <b>Average 5 years, 1895-1899</b> | <b>28.34</b>     | <b>28.63</b>     | <b>26.56</b>     | <b>17.64</b> | <b>17.97</b>     | <b>15.62</b>     | <b>167</b>        | <b>173</b>       | <b>130</b>       |
| 1900 ... ..                       | 26.80            | 26.96            | 25.72            | 17.19        | 17.46            | 15.26            | 162               | 167              | 123              |
| 1901 ... ..                       | 26.57            | 26.78            | 25.13            | 16.28        | 16.58            | 14.21            | 161               | 167              | 118              |
| 1902 ... ..                       | 26.85            | 26.95            | 26.14            | 15.26        | 15.43            | 14.08            | 139               | 143              | 116              |
| 1903 ... ..                       | 26.77            | 27.04            | 24.96            | 15.22        | 15.44            | 13.69            | 140               | 143              | 114              |
| 1904 ... ..                       | 25.56            | 25.66            | 24.90            | 15.54        | 15.78            | 13.81            | 157               | 162              | 124              |
| <b>Average 5 years, 1900-1904</b> | <b>26.51</b>     | <b>26.67</b>     | <b>25.37</b>     | <b>15.89</b> | <b>16.13</b>     | <b>14.21</b>     | <b>151</b>        | <b>156</b>       | <b>119</b>       |
| 1905 ... ..                       | 25.06            | 25.22            | 23.99            | 14.32        | 14.52            | 12.99            | 132               | 137              | 101              |
| 1906 ... ..                       | 24.99            | 25.11            | 24.22            | 14.62        | 14.81            | 13.33            | 139               | 143              | 109              |
| 1907 ... ..                       | 24.23            | 24.47            | 22.60            | 14.40        | 14.59            | 13.11            | 125               | 129              | 96               |
| 1908 ... ..                       | 24.86            | 25.05            | 23.60            | 14.45        | 14.61            | 13.31            | 131               | 136              | 97               |
| 1909 ... ..                       | 23.57            | 23.67            | 22.91            | 13.96        | 14.08            | 13.11            | 115               | 119              | 87               |
| <b>Average 5 years, 1905-1909</b> | <b>24.54</b>     | <b>24.70</b>     | <b>23.46</b>     | <b>14.35</b> | <b>14.52</b>     | <b>13.17</b>     | <b>128</b>        | <b>132</b>       | <b>98</b>        |
| 1910 ... ..                       | 22.48            | 22.47            | 22.52            | 12.73        | 12.83            | 12.09            | 117               | 121              | 93               |
| 1911 ... ..                       | 22.64            | 22.88            | 21.15            | 15.05        | 15.33            | 13.25            | 144               | 148              | 111              |
| 1912 ... ..                       | 22.00            | 22.09            | 21.42            | 13.61        | 13.76            | 12.60            | 104               | 106              | 89               |
| 1913 ... ..                       | 22.20            | 22.41            | 20.86            | 14.20        | 14.39            | 13.00            | 124               | 128              | 100              |
| 1914 ... ..                       | 22.02            | 22.19            | 20.95            | 13.95        | 14.17            | 12.53            | 112               | 115              | 96               |
| <b>Average 5 years, 1910-1914</b> | <b>22.26</b>     | <b>22.40</b>     | <b>21.38</b>     | <b>13.90</b> | <b>14.09</b>     | <b>12.69</b>     | <b>120</b>        | <b>123</b>       | <b>97</b>        |
| 1915 ... ..                       | 19.78            | 19.91            | 18.95            | 15.32        | 15.60            | 13.57            | 119               | 123              | 94               |
| 1916 ... ..                       | 18.54            | 18.54            | 18.59            | 14.31        | 14.47            | 13.32            | 99                | 101              | 82               |
| 1917 ... ..                       | 16.25            | 16.27            | 16.08            | 13.98        | 14.05            | 13.56            | 96                | 96               | 94               |
| 1918 ... ..                       | 16.08            | 16.09            | 16.06            | 17.26        | 17.40            | 16.41            | 100               | 101              | 90               |
| 1919 ... ..                       | 16.62            | 16.58            | 16.88            | 14.06        | 14.01            | 14.40            | 93                | 94               | 88               |
| <b>Average 5 years, 1915-1919</b> | <b>17.45</b>     | <b>17.47</b>     | <b>17.31</b>     | <b>14.98</b> | <b>15.10</b>     | <b>14.25</b>     | <b>101</b>        | <b>103</b>       | <b>89</b>        |
| 1920 ... ..                       | 22.97            | 22.30            | 22.98            | 12.74        | 12.83            | 12.19            | 91                | 95               | 67               |
| 1921 ... ..                       | 20.76            | 21.06            | 18.94            | 12.27        | 12.31            | 11.97            | 88                | 90               | 76               |
| 1922 ... ..                       | 18.11            | 18.28            | 17.04            | 13.23        | 13.43            | 11.99            | 85                | 87               | 75               |
| 1923 ... ..                       | 17.29            | 17.42            | 16.48            | 12.30        | 12.44            | 11.45            | 80                | 82               | 67               |
| 1924 ... ..                       | 16.54            | 16.62            | 16.05            | 12.53        | 12.66            | 11.77            | 81                | 84               | 68               |
| <b>Average 5 years, 1920-1924</b> | <b>19.13</b>     | <b>19.13</b>     | <b>18.29</b>     | <b>12.61</b> | <b>12.73</b>     | <b>11.87</b>     | <b>85</b>         | <b>87</b>        | <b>70</b>        |
| 1925 ... ..                       | 15.89            | 15.99            | 15.23            | 12.66        | 12.79            | 11.86            | 82                | 83               | 71               |
| 1926 ... ..                       | 15.61            | 15.66            | 15.29            | 11.99        | 12.21            | 10.69            | 80                | 82               | 71               |
| 1927 ... ..                       | 14.57            | 14.59            | 14.48            | 12.72        | 12.86            | 11.94            | 73                | 74               | 68               |
| 1928 ... ..                       | 14.56            | 14.64            | 14.08            | 11.91        | 12.08            | 10.95            | 69                | 71               | 57               |
| 1929 ... ..                       | 14.09            | 14.08            | 14.20            | 14.00        | 14.32            | 12.12            | 84                | 87               | 64               |
| <b>Average 5 years, 1925-1929</b> | <b>14.94</b>     | <b>14.99</b>     | <b>14.65</b>     | <b>12.65</b> | <b>12.85</b>     | <b>11.51</b>     | <b>77</b>         | <b>79</b>        | <b>66</b>        |
| 1930 ... ..                       | 14.01            | 14.07            | 13.66            | 11.87        | 12.10            | 10.56            | 64                | 64               | 58               |
| 1931 ... ..                       | 13.85            | 13.90            | 13.51            | 12.86        | 13.05            | 11.73            | 70                | 72               | 63               |
| 1932 ... ..                       | 13.44            | 13.50            | 13.12            | 12.29        | 12.50            | 11.09            | 67                | 68               | 65               |
| <b>1933 ... ..</b>                | <b>12.89</b>     | <b>12.92</b>     | <b>12.70</b>     | <b>13.09</b> | <b>13.26</b>     | <b>12.09</b>     | <b>68</b>         | <b>70</b>        | <b>61</b>        |



ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 2—AREA, POPULATION, NO. OF STRUCTURALLY SEPARATE DWELLINGS OCCUPIED (CENSUS 1931), &c., IN EACH DISTRICT, TOGETHER WITH THE NUMBERS OF BIRTHS AND DEATHS REGISTERED DURING 1933. (NOTE.—For Causes of Death, see Table 3, p. 26.)

| URBAN DISTRICTS.        | POPULATION AT ALL AGES. |               | No. of structurally separate Dwellings occupied, 1931. | No. of Private Families, Census, 1931. | BIRTHS.        |                    |        | DEATHS.                   |                                           |                    | INFANT MORTALITY. |                      |                                   |    |             | MATERNAL MORTALITY. |                             | Tuber- culosis of Respira- tory System. Death Rate per 1,000 popul'n. |                        |                                          |      |     |     |     |     |       |       |       |   |
|-------------------------|-------------------------|---------------|--------------------------------------------------------|----------------------------------------|----------------|--------------------|--------|---------------------------|-------------------------------------------|--------------------|-------------------|----------------------|-----------------------------------|----|-------------|---------------------|-----------------------------|-----------------------------------------------------------------------|------------------------|------------------------------------------|------|-----|-----|-----|-----|-------|-------|-------|---|
|                         | Area in Statute Acres.  | Census, 1931. |                                                        |                                        | Estimate 1933. | LIVE BIRTHS.       |        |                           | Still- birth Rate per 1,000 Total Births. | Number Registered. |                   |                      | Deaths of Infants under One Year. |    |             |                     |                             |                                                                       | Per 1,000 Live Births. | Per 1,000 Total (Live and Still) Births. |      |     |     |     |     |       |       |       |   |
|                         |                         |               |                                                        |                                        |                | Number Registered. |        |                           |                                           | M.                 | F.                | Total No. of Deaths. | M.                                | F. | Both Sexes. | Total Leg. & Illeg. | Rate per 1,000 Live Births. |                                                                       |                        |                                          |      |     |     |     |     |       |       |       |   |
|                         |                         |               |                                                        |                                        |                | M.                 | F.     | Total No. of Live Births. |                                           |                    |                   |                      |                                   |    |             |                     |                             |                                                                       |                        |                                          |      |     |     |     |     |       |       |       |   |
|                         |                         |               |                                                        |                                        |                |                    |        |                           |                                           |                    |                   |                      |                                   |    |             |                     |                             |                                                                       |                        |                                          |      |     |     |     |     |       |       |       |   |
| Ahram                   | ...                     | 6,660         | 6,790                                                  | 1,458                                  | 1,582          | L. 51 I. 2         | 111 2  | 113                       | 16.6                                      | L. 3 I. —          | 1 —               | 4 —                  | 4                                 | 34 | 46          | 35                  | 81                          | 11.9                                                                  | L. 7 I. —              | 3 —                                      | 10 — | 90  | —   | 88  | —   | —     | 0.44  |       |   |
| Accrington (B)          | ...                     | 42,991        | 41,930                                                 | 12,019                                 | 12,208         | L. 200 I. 6        | 386 15 | 401                       | 9.5                                       | L. 18 I. —         | 5 —               | 23 —                 | 23                                | 54 | 292         | 299                 | 591                         | 14.0                                                                  | L. 13 I. 2             | 4 —                                      | 17 2 | 19  | 44  | 133 | 47  | 3.81  | 2.49  | 0.47  |   |
| Adlington               | ...                     | 4,180         | 4,221                                                  | 1,039                                  | 1,043          | L. 18 I. —         | 55     | 55                        | 13.0                                      | L. 3 I. —          | 1 —               | 4 —                  | 4                                 | 67 | 21          | 30                  | 51                          | 12.0                                                                  | L. 1 I. —              | 4 4                                      | 5 —  | 5   | 90  | —   | 90  | —     | —     | 0.71  |   |
| Ashton-in-Makerfield    | ...                     | 20,546        | 20,230                                                 | 4,173                                  | 5,042          | L. 156 I. 1        | 303 3  | 306                       | 15.1                                      | L. 9 I. —          | 10 —              | 19 —                 | 19                                | 58 | 149         | 120                 | 269                         | 13.2                                                                  | L. 19 I. —             | 13 1                                     | 32 1 | 33  | 105 | 333 | 107 | 12.30 | 12.30 | 0.29  |   |
| Ashton-under-Lyne (B)   | ...                     | 51,573        | 50,540                                                 | 13,368                                 | 13,561         | L. 319 I. 11       | 606 28 | 634                       | 12.5                                      | L. 19 I. 1         | 21 —              | 40 1                 | 41                                | 60 | 337         | 367                 | 704                         | 13.9                                                                  | L. 23 I. —             | 16 2                                     | 39 2 | 41  | 64  | 71  | 64  | 6.30  | 5.92  | 0.73  |   |
| Aspull                  | ...                     | 7,193         | 6,929                                                  | 1,591                                  | 1,628          | L. 52 I. —         | 114 5  | 119                       | 17.1                                      | L. 3 I. —          | 5 —               | 8 —                  | 8                                 | 62 | 51          | 45                  | 96                          | 13.8                                                                  | L. 5 I. —              | 7 7                                      | 12 — | 12  | 105 | —   | 100 | —     | —     | 0.86  |   |
| Atherton                | ...                     | 19,989        | 20,430                                                 | 4,750                                  | 5,101          | L. 131 I. 3        | 270 10 | 280                       | 13.7                                      | L. 6 I. —          | 5 —               | 11 —                 | 11                                | 37 | 120         | 122                 | 242                         | 11.8                                                                  | L. 11 I. —             | 8 1                                      | 19 1 | 20  | 70  | 100 | 71  | 3.57  | 3.43  | 0.53  |   |
| Audenshaw               | ...                     | 8,461         | 9,126                                                  | 2,207                                  | 2,298          | L. 53 I. —         | 110 2  | 112                       | 12.2                                      | L. 2 I. —          | 1 1               | 3 1                  | 4                                 | 34 | 42          | 60                  | 102                         | 11.1                                                                  | L. 1 I. —              | 3 —                                      | 4 —  | 4   | 36  | —   | 35  | —     | —     | 0.32  |   |
| Bacup (B)               | ...                     | 20,590        | 20,320                                                 | 5,964                                  | 5,967          | L. 136 I. 9        | 258 21 | 279                       | 13.7                                      | L. 5 I. —          | 7 7               | 12 —                 | 12                                | 41 | 137         | 167                 | 304                         | 14.9                                                                  | L. 10 I. —             | 3 1                                      | 13 1 | 14  | 50  | 47  | 50  | —     | —     | 0.68  |   |
| Barrowford              | ...                     | 5,299         | 5,172                                                  | 1,602                                  | 1,611          | L. 35 I. 1         | 67 2   | 69                        | 13.3                                      | L. 2 I. —          | 3 —               | 5 —                  | 5                                 | 67 | 47          | 47                  | 94                          | 18.1                                                                  | L. 4 I. —              | 3 3                                      | 7 —  | 7   | 104 | —   | 101 | —     | —     | 0.19  |   |
| Billinge and Winstanley | ...                     | 5,111         | 5,118                                                  | 1,045                                  | 1,126          | L. 34 I. 1         | 64 2   | 66                        | 12.8                                      | L. 2 I. —          | 2 —               | 4 —                  | 4                                 | 57 | 31          | 26                  | 57                          | 11.1                                                                  | L. 2 I. —              | 3 3                                      | 5 —  | 5   | 78  | —   | 75  | —     | —     | 0.58  |   |
| Blackrod                | ...                     | 3,599         | 3,564                                                  | 863                                    | 881            | L. 23 I. —         | 49 2   | 51                        | 14.3                                      | L. 1 I. —          | 1 1               | 2 —                  | 2                                 | 37 | 14          | 26                  | 40                          | 11.2                                                                  | L. 1 I. —              | 2 2                                      | —    | 3 — | 3   | 61  | —   | 58    | 18.86 | 0.56  |   |
| Brierfield              | ...                     | 7,696         | 7,652                                                  | 2,252                                  | 2,289          | L. 34 I. 1         | 67 2   | 69                        | 9.0                                       | L. 2 I. —          | 1 —               | 3 —                  | 3                                 | 41 | 67          | 61                  | 128                         | 16.7                                                                  | L. 4 I. —              | 4 5                                      | 9 —  | 9   | 134 | —   | 130 | 14.49 | 13.88 | 0.52  |   |
| Carnforth               | ...                     | 3,192         | 3,229                                                  | 816                                    | 825            | L. 22 I. —         | 43 1   | 44                        | 13.6                                      | L. 1 I. —          | 1 1               | 2 —                  | 2                                 | 43 | 21          | 15                  | 36                          | 11.1                                                                  | L. 2 I. —              | —                                        | —    | 2 — | 2   | 46  | —   | 45    | 22.72 | 21.73 | — |
| Chadderton              | ...                     | 27,450        | 27,670                                                 | 7,009                                  | 7,096          | L. 134 I. 5        | 288 13 | 301                       | 10.8                                      | L. 6 I. —          | 7 7               | 13 —                 | 13                                | 41 | 188         | 181                 | 369                         | 13.3                                                                  | L. 7 I. —              | 13 13                                    | 20 — | 20  | 69  | —   | 66  | 6.64  | 6.36  | 0.57  |   |
| Chorley (B)             | ...                     | 30,796        | 30,520                                                 | 7,752                                  | 7,985          | L. 195 I. 6        | 392 20 | 412                       | 13.4                                      | L. 10 I. —         | 14 14             | 24 —                 | 24                                | 55 | 191         | 212                 | 403                         | 13.2                                                                  | L. 27 I. —             | 13 1                                     | 40 1 | 41  | 102 | 50  | 99  | 4.85  | 4.58  | 0.42  |   |
| Church                  | ...                     | 6,187         | 6,030                                                  | 1,666                                  | 1,717          | L. 33 I. 1         | 66 2   | 68                        | 11.2                                      | L. — I. —          | 3 —               | 3 —                  | 3                                 | 42 | 48          | 45                  | 93                          | 15.4                                                                  | L. 2 I. —              | 2 2                                      | 4 —  | 4   | 60  | —   | 58  | 14.70 | 14.08 | 0.49  |   |

L.—Legitimate. I.—Illegitimate.

TABLE 2—continued.

| URBAN DISTRICTS.      | POPULATION AT ALL AGES. |               | No. of structurally separate dwellings occupied, 1931. | No. of Families, Census, 1931. | BIRTHS.        |       |                    |             | DEATHS.                            |                           | INFANT MORTALITY. |      |                                           |                                   |                     | MATERNAL MORTALITY.         |                    | Tuber- culosis of Respira- tory System. Death Rate per 1,000 popul'n. |                        |                                          |    |     |     |       |        |        |      |
|-----------------------|-------------------------|---------------|--------------------------------------------------------|--------------------------------|----------------|-------|--------------------|-------------|------------------------------------|---------------------------|-------------------|------|-------------------------------------------|-----------------------------------|---------------------|-----------------------------|--------------------|-----------------------------------------------------------------------|------------------------|------------------------------------------|----|-----|-----|-------|--------|--------|------|
|                       |                         |               |                                                        |                                | LIVE BIRTHS.   |       | STILLBIRTHS.       |             |                                    |                           |                   |      |                                           |                                   |                     |                             |                    |                                                                       |                        |                                          |    |     |     |       |        |        |      |
|                       | Area in Statute Acres.  | Census, 1931. |                                                        |                                | Estimate 1933. | M.    | Number Registered. |             | Live Birth Rate per 1,000 popul'n. | Number Registered.        |                   |      | Still- birth Rate per 1,000 Total Births. | Deaths of Infants under One Year. |                     |                             |                    |                                                                       | Per 1,000 Live Births. | Per 1,000 Total (Live and Still) Births. |    |     |     |       |        |        |      |
|                       |                         |               |                                                        |                                |                |       | F.                 | Both Sexes. |                                    | Total No. of Live Births. | M.                | F.   |                                           | Both Sexes.                       | Total Leg. & Illeg. | Rate per 1,000 Live Births. |                    |                                                                       |                        |                                          |    |     |     |       |        |        |      |
|                       |                         |               |                                                        |                                |                |       |                    |             |                                    |                           |                   |      |                                           |                                   |                     |                             | Leg. Illeg. Total. |                                                                       |                        |                                          |    |     |     |       |        |        |      |
| Clayton-le-Moors ...  | 1,060                   | 7,909         | 7,650                                                  | 2,101                          | L. 42 I. —     | 47 1  | 89 1               | 90 }        | 11.7                               | L. 3 I. —                 | 1 —               | 4 —  | 42                                        | 53                                | 54                  | 107                         | 13.9               | L. 5 I. —                                                             | 3 —                    | 8 —                                      | 89 | —   | 88  | 11.11 | 10.63  | 0.13   |      |
| Clitheroe (B) ...     | 2,386                   | 12,008        | 11,870                                                 | 3,390                          | L. 74 I. —     | 70 5  | 144 5              | 149 }       | 12.5                               | L. 3 I. —                 | 2 —               | 5 —  | 32                                        | 70                                | 87                  | 157                         | 13.2               | L. 3 I. —                                                             | 2 —                    | 5 —                                      | 34 | —   | 33  | 13.42 | 12.98  | 0.16   |      |
| Colne (B) ...         | 5,062                   | 23,791        | 23,380                                                 | 7,011                          | L. 131 I. 10   | 135 3 | 266 13             | 279 }       | 11.9                               | L. 3 I. 1                 | 7 1               | 10 2 | 41                                        | 162                               | 182                 | 344                         | 14.7               | L. 16 I. 2                                                            | 8 2                    | 24 4                                     | 90 | 307 | 100 | 7.16  | 6.87   | 0.76   |      |
| Crompton ...          | 2,865                   | 14,764        | 14,560                                                 | 3,909                          | L. 71 I. 7     | 81 3  | 152 10             | 162 }       | 11.1                               | L. 2 I. —                 | 4 —               | 6 —  | 35                                        | 106                               | 97                  | 203                         | 13.9               | L. 4 I. 1                                                             | 5 —                    | 9 1                                      | 10 | 59  | 100 | 61    | 12.34  | 11.90  | 0.48 |
| Croston ...           | 2,352                   | 1,934         | 1,878                                                  | 519                            | L. 8 I. —      | 8 —   | 16 —               | 16 }        | 8.5                                | L. — I. —                 | — —               | — —  | —                                         | 12                                | 17                  | 29                          | 15.4               | L. — I. —                                                             | — —                    | — —                                      | —  | —   | —   | —     | —      | 0.53   |      |
| Dalton-in-Furness ... | 7,994                   | 10,339        | 10,270                                                 | 2,779                          | L. 77 I. 2     | 72 3  | 149 5              | 154 }       | 14.9                               | L. 2 I. —                 | 8 —               | 10 — | 60                                        | 83                                | 77                  | 160                         | 14.9               | L. 4 I. —                                                             | 5 2                    | 9 2                                      | 11 | 60  | 400 | 71    | 19.48  | 18.29  | 1.26 |
| Darwen (B) ...        | 5,959                   | 36,012        | 34,870                                                 | 10,385                         | L. 162 I. 9    | 181 7 | 343 16             | 359 }       | 10.2                               | L. 9 I. —                 | 15 2              | 24 2 | 67                                        | 210                               | 292                 | 502                         | 14.3               | L. 14 I. 2                                                            | 9 —                    | 23 2                                     | 25 | 67  | 125 | 69    | 11.14  | 10.38  | 0.40 |
| Deuton] ...           | 2,593                   | 17,384        | 17,870                                                 | 4,756                          | L. 88 I. 3     | 105 3 | 193 6              | 199 }       | 11.1                               | L. 10 I. —                | 4 —               | 14 — | 65                                        | 116                               | 115                 | 231                         | 12.9               | L. 7 I. —                                                             | 9 —                    | 16 —                                     | 16 | 82  | —   | 80    | 10.05  | 9.38   | 0.55 |
| Droylsden ...         | 1,010                   | 13,274        | 15,110                                                 | 3,318                          | L. 101 I. —    | 92 4  | 193 4              | 197 }       | 13.0                               | L. 11 I. —                | 5 —               | 16 — | 75                                        | 99                                | 99                  | 198                         | 13.1               | L. 5 I. —                                                             | 8 1                    | 13 1                                     | 14 | 67  | 250 | 71    | 10.15  | 9.38   | 0.72 |
| Eccles (B) ...        | 3,417                   | 44,416        | 43,970                                                 | 11,126                         | L. 253 I. 9    | 266 8 | 519 17             | 536 }       | 12.2                               | L. 16 I. —                | 17 2              | 33 2 | 61                                        | 250                               | 236                 | 486                         | 11.0               | L. 14 I. —                                                            | 12 2                   | 26 2                                     | 28 | 50  | 117 | 52    | 5.59   | 5.25   | 0.61 |
| Fallsworth ...        | 1,072                   | 15,726        | 15,800                                                 | 3,883                          | L. 92 I. 7     | 87 3  | 179 10             | 189 }       | 11.9                               | L. 7 I. —                 | 5 —               | 12 — | 59                                        | 105                               | 105                 | 210                         | 13.2               | L. 4 I. 3                                                             | 8 1                    | 12 4                                     | 16 | 66  | 400 | 84    | —      | —      | 0.75 |
| Farnworth ...         | 1,504                   | 28,717        | 28,300                                                 | 7,188                          | L. 141 I. 7    | 175 5 | 316 12             | 328 }       | 11.5                               | L. 16 I. 1                | 8 —               | 24 1 | 70                                        | 187                               | 217                 | 404                         | 14.2               | L. 13 I. 1                                                            | 16 2                   | 29 3                                     | 32 | 91  | 250 | 97    | 9.14   | 8.49   | 0.42 |
| Fleetwood (B) ...     | 2,565                   | 23,001        | 23,430                                                 | 5,202                          | L. 225 I. 6    | 191 6 | 416 12             | 428 }       | 18.2                               | L. 8 I. —                 | 12 —              | 20 — | 44                                        | 135                               | 107                 | 242                         | 10.3               | L. 17 I. 2                                                            | 13 3                   | 30 5                                     | 35 | 72  | 416 | 81    | 4.67   | 4.46   | 0.76 |
| Formby ...            | 5,613                   | 7,965         | 8,448                                                  | 1,908                          | L. 58 I. 5     | 43 1  | 101 6              | 107 }       | 12.6                               | L. — I. —                 | — —               | — —  | —                                         | 43                                | 50                  | 93                          | 11.0               | L. 2 I. 1                                                             | 6 —                    | 8 1                                      | 9  | 79  | 166 | 84    | —      | —      | 0.59 |
| Fulwood ...           | 2,116                   | 7,387         | 7,548                                                  | 1,437                          | L. 31 I. —     | 29 —  | 60 —               | 60 }        | 7.9                                | L. 1 I. —                 | — —               | 1 —  | 16                                        | 52                                | 53                  | 105                         | 13.1               | L. 2 I. —                                                             | 1 —                    | 3 —                                      | 3  | 50  | —   | 50    | —      | —      | —    |
| Golborne ...          | 7,548                   | 7,321         | 14,095                                                 | 1,622                          | L. 75 I. 1     | 87 —  | 162 1              | 163 }       | 16.1                               | L. 6 I. —                 | 4 —               | 10 — | 57                                        | 50                                | 43                  | 93                          | 10.0               | L. 4 I. —                                                             | 3 —                    | 7 —                                      | 7  | 43  | —   | 42    | 6.13   | 5.78   | 0.86 |
| Grange-over-Sands ... | 1,883                   | 2,648         | 2,332                                                  | 567                            | L. 5 I. —      | 3 —   | 8 —                | 8 }         | 3.4                                | L. 1 I. —                 | 1 —               | 2 —  | 200                                       | 24                                | 18                  | 42                          | 18.0               | L. — I. —                                                             | — —                    | — —                                      | —  | —   | —   | —     | 250.00 | 200.00 | 0.42 |

TABLE 2—continued.

| URBAN DISTRICTS.   | POPULATION<br>AT ALL AGES. |                   | No. of<br>structurally<br>separate<br>Dwell-<br>ings<br>occupied,<br>1931. | BIRTHS.            |        |                                         |                                                | DEATHS.                            |           |     | INFANT MORTALITY.                                        |                    |         |         |                                      | MATERNAL<br>MORTALITY. |     | Tuber-<br>culosis<br>of<br>Respira-<br>tory<br>System.<br>Death<br>Rate per<br>1,000<br>popul'n. |                              |                                                      |                            |                                        |    |     |               |                           |                                |                    |      |  |
|--------------------|----------------------------|-------------------|----------------------------------------------------------------------------|--------------------|--------|-----------------------------------------|------------------------------------------------|------------------------------------|-----------|-----|----------------------------------------------------------|--------------------|---------|---------|--------------------------------------|------------------------|-----|--------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------|----------------------------|----------------------------------------|----|-----|---------------|---------------------------|--------------------------------|--------------------|------|--|
|                    |                            |                   |                                                                            | LIVE BIRTHS.       |        | No. of<br>Private<br>Families,<br>1931. | STILLBIRTHS.                                   |                                    |           |     |                                                          |                    |         |         |                                      |                        |     |                                                                                                  |                              |                                                      |                            |                                        |    |     |               |                           |                                |                    |      |  |
|                    | Census,<br>1931.           | Estimate<br>1933. |                                                                            | Number Registered. |        |                                         | Live<br>Birth<br>Rate<br>per 1,000<br>popul'n. | Number Registered.                 |           |     | Still-<br>birth<br>Rate<br>per 1,000<br>Total<br>Births. | Number Registered. |         |         | Deaths of Infants under One Year.    |                        |     |                                                                                                  | Per 1,000<br>Live<br>Births. | Per 1,000<br>Total<br>(Live and<br>Still)<br>Births. |                            |                                        |    |     |               |                           |                                |                    |      |  |
|                    |                            |                   |                                                                            | M.                 | F.     | Both<br>Sexes.                          |                                                | Total<br>No. of<br>Live<br>Births. | M.        | F.  |                                                          |                    |         |         | Total<br>No. of<br>Still-<br>births. | M.                     | F.  |                                                                                                  |                              |                                                      | Total<br>No. of<br>Deaths. | Death<br>Rate<br>per 1,000<br>popul'n. | M. | F.  | Both<br>Sexes | Total<br>Leg. &<br>Illeg. | Rate per 1,000<br>Live Births. | Leg. Illeg. Total. |      |  |
|                    |                            |                   |                                                                            |                    |        |                                         |                                                |                                    |           |     |                                                          |                    |         |         |                                      |                        |     |                                                                                                  |                              |                                                      |                            |                                        |    |     |               |                           |                                |                    |      |  |
| Great Crosby       | ...                        | ...               | 18,285                                                                     | 22,170             | 4,487  | 4,637                                   | L. 132<br>I. 4                                 | 129<br>5                           | 261<br>9  | 270 | 12.1                                                     | L. 3<br>I. 1       | 5<br>—  | 8<br>1  | 9                                    | 113                    | 119 | 232                                                                                              | 10.4                         | L. 6<br>I. 3                                         | 11<br>—                    | 17<br>3                                | 20 | 65  | 333           | 74                        | —                              | —                  | 0.31 |  |
| Great Harwood      | ...                        | ...               | 12,789                                                                     | 12,310             | 3,498  | 3,555                                   | L. 73<br>I. 2                                  | 69<br>4                            | 142<br>6  | 148 | 12.0                                                     | L. 5<br>I. —       | 4<br>1  | 9<br>1  | 10                                   | 72                     | 91  | 163                                                                                              | 13.2                         | L. 8<br>I. 1                                         | 3<br>—                     | 11<br>1                                | 12 | 77  | 166           | 81                        | —                              | —                  | 0.24 |  |
| Haslingden (B)     | ...                        | ...               | 16,639                                                                     | 16,280             | 4,856  | 4,877                                   | L. 66<br>I. 2                                  | 89<br>3                            | 155<br>5  | 160 | 9.8                                                      | L. 6<br>I. —       | 1<br>—  | 7<br>—  | 7                                    | 115                    | 140 | 255                                                                                              | 15.6                         | L. 8<br>I. —                                         | 7<br>—                     | 15<br>—                                | 15 | 96  | —             | 93                        | 18.75                          | 17.96              | 0.30 |  |
| Haydock            | ...                        | ...               | 10,350                                                                     | 10,290             | 1,996  | 2,332                                   | L. 93<br>I. 1                                  | 80<br>1                            | 173<br>2  | 175 | 17.0                                                     | L. 5<br>I. —       | 2<br>—  | 8<br>—  | 8                                    | 71                     | 76  | 147                                                                                              | 14.2                         | L. 10<br>I. —                                        | 7<br>—                     | 17<br>—                                | 17 | 98  | —             | 97                        | 11.42                          | 10.92              | 0.29 |  |
| Heywood (B)        | ...                        | ...               | 25,968                                                                     | 26,389             | 7,136  | 7,203                                   | L. 153<br>I. 7                                 | 142<br>3                           | 295<br>10 | 305 | 11.7                                                     | L. 12<br>I. 1      | 12<br>1 | 24<br>2 | 26                                   | 183                    | 204 | 387                                                                                              | 14.9                         | L. 8<br>I. 1                                         | 14<br>—                    | 22<br>1                                | 23 | 74  | 100           | 75                        | 3.27                           | 3.02               | 0.54 |  |
| Hindley            | ...                        | ...               | 21,632                                                                     | 21,170             | 4,936  | 5,390                                   | L. 160<br>I. 3                                 | 159<br>2                           | 319<br>5  | 324 | 15.3                                                     | L. 19<br>I. —      | 12<br>— | 31<br>— | 31                                   | 175                    | 154 | 329                                                                                              | 15.5                         | L. 20<br>I. 1                                        | 23<br>2                    | 43<br>3                                | 46 | 134 | 600           | 141                       | 6.17                           | 5.63               | 0.70 |  |
| Horwich            | ...                        | ...               | 15,680                                                                     | 15,320             | 4,053  | 4,159                                   | L. 103<br>I. 4                                 | 71<br>5                            | 174<br>9  | 183 | 11.9                                                     | L. 6<br>I. —       | —<br>—  | 6<br>—  | 6                                    | 86                     | 93  | 179                                                                                              | 11.6                         | L. 5<br>I. —                                         | 3<br>1                     | 8<br>1                                 | 9  | 45  | 111           | 49                        | 5.46                           | 5.29               | 0.52 |  |
| Huyton-with-Roby   | ...                        | ...               | 5,199                                                                      | 5,629              | 1,157  | 1,182                                   | L. 38<br>I. —                                  | 25<br>—                            | 63<br>—   | 63  | 11.1                                                     | L. —<br>I. —       | 1<br>—  | 1<br>—  | 1                                    | 32                     | 28  | 60                                                                                               | 10.6                         | L. 1<br>I. —                                         | 1<br>—                     | 2<br>—                                 | 2  | 31  | —             | 31                        | —                              | —                  | 0.35 |  |
| Ince-in-Makerfield | ...                        | ...               | 21,761                                                                     | 22,240             | 4,506  | 5,244                                   | L. 243<br>I. 4                                 | 207<br>6                           | 450<br>10 | 460 | 20.6                                                     | L. 16<br>I. 1      | 13<br>— | 29<br>1 | 30                                   | 200                    | 146 | 346                                                                                              | 15.5                         | L. 43<br>I. 1                                        | 12<br>1                    | 55<br>2                                | 57 | 122 | 200           | 123                       | 10.86                          | 10.20              | 0.89 |  |
| Irlam              | ...                        | ...               | 12,901                                                                     | 13,030             | 3,007  | 3,097                                   | L. 108<br>I. 2                                 | 95<br>—                            | 203<br>2  | 205 | 15.7                                                     | L. 4<br>I. —       | 1<br>—  | 5<br>—  | 5                                    | 79                     | 69  | 148                                                                                              | 11.3                         | L. 8<br>I. —                                         | 2<br>—                     | 10<br>—                                | 10 | 49  | —             | 48                        | 4.87                           | 4.76               | 0.68 |  |
| Kearsley           | ...                        | ...               | 9,737                                                                      | 11,095             | 2,540  | 2,578                                   | L. 76<br>I. 2                                  | 61<br>—                            | 137<br>2  | 139 | 12.9                                                     | L. 4<br>I. 2       | 6<br>—  | 10<br>2 | 21                                   | 87                     | 79  | 166                                                                                              | 15.4                         | L. 4<br>I. —                                         | 2<br>—                     | 6<br>—                                 | 6  | 43  | —             | 43                        | 7.19                           | 6.62               | 0.55 |  |
| Kirkham            | ...                        | ...               | 4,031                                                                      | 4,084              | 1,040  | 1,065                                   | L. 31<br>I. 1                                  | 34<br>2                            | 65<br>3   | 68  | 16.6                                                     | L. 1<br>I. —       | 1<br>2  | 2<br>2  | 4                                    | 26                     | 27  | 53                                                                                               | 12.9                         | L. 2<br>I. —                                         | 2<br>—                     | 4<br>—                                 | 4  | 61  | —             | 58                        | —                              | —                  | 0.73 |  |
| Lancaster (B)      | ...                        | ...               | 43,383                                                                     | 44,470             | 9,530  | 9,988                                   | L. 325<br>I. 14                                | 264<br>25                          | 589<br>39 | 628 | 14.1                                                     | L. 17<br>I. —      | 9<br>—  | 26<br>— | 26                                   | 297                    | 267 | 564                                                                                              | 12.6                         | L. 24<br>I. —                                        | 16<br>2                    | 40<br>2                                | 42 | 67  | 51            | 66                        | 4.77                           | 4.58               | 0.71 |  |
| Lees               | ...                        | ...               | 4,738                                                                      | 4,602              | 1,291  | 1,311                                   | L. 24<br>I. —                                  | 25<br>—                            | 49<br>—   | 49  | 10.6                                                     | L. 1<br>I. —       | 1<br>—  | 2<br>—  | 2                                    | 37                     | 31  | 68                                                                                               | 14.7                         | L. 1<br>I. —                                         | 3<br>—                     | 4<br>—                                 | 4  | 81  | —             | 81                        | —                              | —                  | 0.65 |  |
| Leigh (B)          | ...                        | ...               | 45,317                                                                     | 45,190             | 10,593 | 10,799                                  | L. 335<br>I. 10                                | 301<br>11                          | 636<br>21 | 657 | 14.5                                                     | L. 26<br>I. —      | 20<br>1 | 46<br>1 | 47                                   | 329                    | 295 | 624                                                                                              | 13.8                         | L. 32<br>I. 4                                        | 14<br>1                    | 46<br>5                                | 51 | 72  | 238           | 77                        | 1.52                           | 1.42               | 0.68 |  |
| Leyland            | ...                        | ...               | 10,571                                                                     | 10,960             | 2,777  | 2,820                                   | L. 67<br>I. 4                                  | 59<br>2                            | 126<br>6  | 132 | 12.0                                                     | L. 8<br>I. —       | 3<br>—  | 11<br>— | 11                                   | 68                     | 73  | 141                                                                                              | 12.8                         | L. 6<br>I. —                                         | 3<br>1                     | 9<br>1                                 | 10 | 71  | 166           | 75                        | 7.57                           | 6.99               | 0.54 |  |



TABLE F. 2—*continued*.

| URBAN DISTRICTS.            | POPULATION<br>AT ALL AGES. |        | No. of<br>structurally<br>separate<br>Dwell-<br>ings<br>occupied,<br>1931. | BIRTHS.                                            |                                    |                |          | DEATHS.      |                |      | INFANT MORTALITY.  |                           |                                |                                        |                                   |                | MATERNAL<br>MORTALITY. |     | Tuber-<br>culosis<br>of<br>Respira-<br>tory<br>System.<br>Death<br>Rate per<br>1,000<br>popul'n. |               |                              |                                                      |    |     |     |     |       |       |      |
|-----------------------------|----------------------------|--------|----------------------------------------------------------------------------|----------------------------------------------------|------------------------------------|----------------|----------|--------------|----------------|------|--------------------|---------------------------|--------------------------------|----------------------------------------|-----------------------------------|----------------|------------------------|-----|--------------------------------------------------------------------------------------------------|---------------|------------------------------|------------------------------------------------------|----|-----|-----|-----|-------|-------|------|
|                             |                            |        |                                                                            | No. of<br>Private<br>Families,<br>Census,<br>1931. | LIVE BIRTHS.                       |                |          | STILLBIRTHS. |                |      | Number Registered. |                           |                                | Death<br>Rate<br>per 1,000<br>popul'n. | Deaths of Infants under One Year. |                |                        |     |                                                                                                  |               | Per 1,000<br>Live<br>Births. | Per 1,000<br>Total<br>(Live and<br>Still)<br>Births. |    |     |     |     |       |       |      |
|                             | Number Registered.         |        |                                                                            |                                                    | Total<br>No. of<br>Live<br>Births. | Both<br>Sexes. | F.       | M.           | Both<br>Sexes. | F.   | M.                 | Total<br>Leg. &<br>Illeg. | Rate per 1,000<br>Live Births. |                                        | Leg. Illeg. Total.                |                |                        |     |                                                                                                  |               |                              |                                                      |    |     |     |     |       |       |      |
|                             | M.                         | F.     |                                                                            |                                                    |                                    |                |          |              |                |      |                    |                           |                                |                                        |                                   | Both<br>Sexes. |                        |     |                                                                                                  |               |                              |                                                      |    |     |     |     |       |       |      |
|                             |                            |        |                                                                            |                                                    |                                    |                |          |              |                |      |                    |                           |                                |                                        |                                   |                |                        |     |                                                                                                  |               |                              |                                                      |    |     |     |     |       |       |      |
| Litherland ...              | 857                        | 15,959 | 16,620                                                                     | 3,442                                              | 3,763                              | L. 160<br>I. 5 | 127<br>9 | 287<br>14    | 301            | 18.1 | L. 4<br>I. —       | 3<br>—                    | 7<br>—                         | 7                                      | 22                                | 111            | 116                    | 227 | 13.6                                                                                             | L. 13<br>I. 2 | 11<br>2                      | 24<br>4                                              | 28 | 83  | 285 | 93  | 6.64  | 6.49  | 1.44 |
| Littleborough ...           | 7,855                      | 12,028 | 11,880                                                                     | 3,496                                              | 3,507                              | L. 65<br>I. 2  | 64<br>1  | 129<br>3     | 132            | 11.1 | L. 2<br>I. —       | 5<br>—                    | 7<br>—                         | 7                                      | 50                                | 85             | 95                     | 180 | 15.1                                                                                             | L. 4<br>I. —  | 1<br>—                       | 5<br>—                                               | 5  | 38  | —   | 37  | —     | —     | 0.33 |
| *Little Hulton ...          | —                          | 7,874  | —                                                                          | 1,965                                              | 1,979                              | L. 20<br>I. —  | 14<br>—  | 34           | 34             | 17.8 | L. 2<br>I. —       | —                         | 2<br>—                         | 2                                      | 55                                | 16             | 14                     | 30  | 15.7                                                                                             | L. 4<br>I. —  | 1<br>—                       | 5<br>—                                               | 5  | 147 | —   | 147 | —     | —     | 2.10 |
| Little Lever ...            | 808                        | 4,944  | 4,900                                                                      | 1,390                                              | 1,425                              | L. 28<br>I. 1  | 32<br>2  | 60<br>3      | 63             | 12.8 | L. 2<br>I. 1       | —                         | 2<br>1                         | 3                                      | 45                                | 39             | 38                     | 77  | 15.7                                                                                             | L. 1<br>I. —  | 2<br>1                       | 3<br>1                                               | 4  | 50  | 333 | 63  | 15.87 | 15.15 | 0.40 |
| Longridge ...               | 3,285                      | 4,158  | 4,116                                                                      | 1,106                                              | 1,110                              | L. 22<br>I. 1  | 22<br>1  | 44<br>2      | 46             | 11.1 | L. —<br>I. —       | —                         | —                              | —                                      | —                                 | 20             | 36                     | 56  | 13.6                                                                                             | L. —<br>I. —  | 2<br>—                       | 2<br>—                                               | 2  | 45  | —   | 43  | 21.73 | 21.73 | 1.21 |
| Lytham Saint Anne's (B) ... | 5,806                      | 25,764 | 24,910                                                                     | 6,300                                              | 6,617                              | L. 92<br>I. 5  | 100<br>7 | 192<br>12    | 204            | 8.1  | L. 6<br>I. 1       | 3<br>—                    | 9<br>1                         | 10                                     | 46                                | 190            | 219                    | 409 | 16.4                                                                                             | L. 5<br>I. —  | 4<br>2                       | 9<br>2                                               | 11 | 46  | 166 | 53  | 14.70 | 14.01 | 0.48 |
| Middleton (B) ...           | 5,169                      | 29,188 | 29,010                                                                     | 7,821                                              | 7,868                              | L. 181<br>I. 7 | 179<br>6 | 360<br>13    | 373            | 12.8 | L. 8<br>I. 1       | 9<br>—                    | 17<br>1                        | 18                                     | 46                                | 205            | 207                    | 412 | 14.2                                                                                             | L. 12<br>I. 2 | 7<br>2                       | 19<br>4                                              | 23 | 52  | 307 | 61  | 5.36  | 5.11  | 0.55 |
| Milnrow ...                 | 5,194                      | 8,623  | 8,460                                                                      | 2,574                                              | 2,575                              | L. 64<br>I. 2  | 50<br>1  | 114<br>3     | 117            | 13.8 | L. 5<br>I. 1       | 4<br>—                    | 9<br>1                         | 10                                     | 78                                | 55             | 78                     | 133 | 15.7                                                                                             | L. 4<br>I. —  | 3<br>—                       | 7<br>—                                               | 7  | 61  | —   | 59  | —     | —     | 0.47 |
| Morecambe and Heysham (B)   | 3,769                      | 24,542 | 26,040                                                                     | 5,749                                              | 6,188                              | L. 122<br>I. 9 | 106<br>5 | 228<br>14    | 242            | 9.2  | L. 2<br>I. 1       | 7<br>—                    | 9<br>1                         | 10                                     | 39                                | 193            | 220                    | 413 | 15.8                                                                                             | L. 10<br>I. — | 11<br>—                      | 21<br>—                                              | 21 | 91  | —   | 86  | —     | —     | 0.30 |
| Mossley (B) ...             | 3,624                      | 12,042 | 11,780                                                                     | 3,395                                              | 3,403                              | L. 54<br>I. 4  | 80<br>3  | 134<br>7     | 141            | 11.9 | L. 2<br>I. —       | 3<br>—                    | 5<br>—                         | 5                                      | 34                                | 69             | 89                     | 158 | 13.4                                                                                             | L. 3<br>I. 2  | 5<br>—                       | 8<br>2                                               | 10 | 59  | 285 | 70  | —     | —     | 0.59 |
| Nelson (B) ...              | 3,465                      | 38,304 | 37,710                                                                     | 11,128                                             | 11,281                             | L. 194<br>I. 7 | 186<br>7 | 380<br>14    | 394            | 10.4 | L. 11<br>I. 2      | 7<br>1                    | 18<br>3                        | 21                                     | 50                                | 249            | 287                    | 536 | 14.2                                                                                             | L. 18<br>I. 2 | 11<br>—                      | 29<br>2                                              | 31 | 76  | 142 | 78  | 10.15 | 9.63  | 0.45 |
| Newton-in-Makerfield ...    | 3,105                      | 20,152 | 20,340                                                                     | 4,758                                              | 5,039                              | L. 157<br>I. 2 | 141<br>8 | 298<br>10    | 308            | 15.1 | L. 6<br>I. —       | 9<br>—                    | 15<br>—                        | 15                                     | 46                                | 148            | 114                    | 262 | 12.8                                                                                             | L. 13<br>I. — | 9<br>—                       | 22<br>—                                              | 22 | 73  | —   | 71  | 6.49  | 6.19  | 0.63 |
| †Norden ...                 | —                          | 4,348  | —                                                                          | 1,254                                              | 1,257                              | L. 24<br>I. 1  | 25<br>2  | 49<br>3      | 52             | 15.5 | L. 2<br>I. —       | —                         | 2<br>1                         | 3                                      | 54                                | 24             | 30                     | 54  | 16.1                                                                                             | L. 1<br>I. —  | 2<br>—                       | 3<br>—                                               | 3  | 61  | —   | 57  | —     | —     | 0.29 |
| Ormskirk ...                | 15,608                     | 17,118 | 17,410                                                                     | 3,917                                              | 4,003                              | L. 102<br>I. 5 | 104<br>7 | 206<br>12    | 218            | 12.5 | L. 4<br>I. —       | 7<br>—                    | 11<br>—                        | 11                                     | 48                                | 113            | 122                    | 235 | 13.4                                                                                             | L. 9<br>I. —  | 7<br>2                       | 16<br>2                                              | 18 | 77  | 166 | 82  | 9.17  | 8.73  | 0.80 |
| Orrell... ..                | 1,617                      | 6,949  | 7,162                                                                      | 1,682                                              | 1,849                              | L. 43<br>I. 3  | 36<br>1  | 79<br>4      | 83             | 11.5 | L. 4<br>I. —       | 2<br>—                    | 6<br>—                         | 6                                      | 67                                | 43             | 39                     | 82  | 11.4                                                                                             | L. 4<br>I. —  | 3<br>—                       | 7<br>—                                               | 7  | 88  | —   | 84  | —     | —     | 0.55 |
| Oswaldtwistle ...           | 4,885                      | 14,218 | 13,810                                                                     | 3,816                                              | 3,963                              | L. 63<br>I. 3  | 67<br>3  | 130<br>6     | 136            | 9.8  | L. 6<br>I. —       | 9<br>—                    | 15<br>—                        | 15                                     | 99                                | 97             | 77                     | 174 | 12.5                                                                                             | L. 2<br>I. —  | 3<br>—                       | 5<br>—                                               | 5  | 38  | —   | 36  | —     | —     | 0.57 |

\* District incorporated with Worsley, 1st April, 1933.

† District abolished, 1st October, 1933.

TABLE 2—continued.

| URBAN DISTRICTS.           | POPULATION AT ALL AGES. |                | No. of structurally separate dwellings occupied, 1931. | No. of Private Families, Census, 1931. | BIRTHS.                            |                    |                           |       | DEATHS.                                   |       |             | INFANT MORTALITY.           |                    |       |             |                                   | MATERNAL MORTALITY.         |                    | Tuber- culosis of Respira- tory System. Death Rate per 1,000 popul'n. |        |                        |                                    |      |
|----------------------------|-------------------------|----------------|--------------------------------------------------------|----------------------------------------|------------------------------------|--------------------|---------------------------|-------|-------------------------------------------|-------|-------------|-----------------------------|--------------------|-------|-------------|-----------------------------------|-----------------------------|--------------------|-----------------------------------------------------------------------|--------|------------------------|------------------------------------|------|
|                            |                         |                |                                                        |                                        | LIVE BIRTHS.                       |                    |                           |       | STILLBIRTHS.                              |       |             |                             | Number Registered. |       |             | Deaths of Infants under One Year. |                             |                    |                                                                       |        | Per 1,000 Live Births. | Per 1,000 (Live and Still) Births. |      |
|                            | Number Registered.      |                |                                                        |                                        | Live Birth Rate per 1,000 popul'n. | Number Registered. |                           |       | Still- birth Rate per 1,000 Total Births. |       |             |                             |                    |       |             |                                   |                             |                    |                                                                       |        |                        |                                    |      |
|                            | M.                      | F.             |                                                        |                                        |                                    | Both Sexes.        | Total No. of Live Births. | M.    |                                           | F.    | Both Sexes. | Total No. of Still- births. | M.                 | F.    | Both Sexes. | Total Leg. & Illeg.               | Rate per 1,000 Live Births. | Leg. Illeg. Total. |                                                                       |        |                        |                                    |      |
|                            | Census, 1931.           | Estimate 1933. |                                                        |                                        |                                    |                    |                           |       |                                           |       |             |                             |                    |       |             |                                   |                             |                    |                                                                       |        |                        |                                    |      |
| Padiham ...                | 11,633                  | 11,490         | 3,197                                                  | 3,230                                  | L. 66 I. 2                         | 72 4               | 138 6                     | 144 } | L. 12.5 I.                                | 3 —   | 6 —         | 40 }                        | 89 }               | 95 }  | 184 }       | 16.0                              | L. 8 I. —                   | 6 —                | 14 }                                                                  | 101 —  | 97 —                   | 6.66                               | 0.52 |
| Poulton-le-Fylde ...       | 3,366                   | 3,246          | 860                                                    | 883                                    | L. 11 I. —                         | 16 1               | 27 1                      | 28 }  | L. 8.6 I. —                               | 1 —   | 1 —         | 34 }                        | 17 }               | 23 }  | 40 }        | 12.3                              | L. 1 I. —                   | —                  | 1 }                                                                   | 37 —   | 35 —                   | —                                  | 0.30 |
| Preesall ...               | 2,043                   | 2,103          | 552                                                    | 556                                    | L. 13 I. —                         | 12 —               | 25 —                      | 25 }  | L. 11.8 I. —                              | 2 —   | 2 —         | 74 }                        | 14 }               | 15 }  | 29 }        | 13.8                              | L. — I. —                   | —                  | —                                                                     | —      | —                      | —                                  | —    |
| Prescot ...                | 9,399                   | 11,490         | 2,136                                                  | 2,223                                  | L. 77 I. 2                         | 84 1               | 161 3                     | 164 } | L. 14.2 I. —                              | 1 —   | 7 —         | 40 }                        | 65 }               | 68 }  | 133 }       | 11.5                              | L. 3 I. —                   | 7 —                | 10 }                                                                  | 62 —   | 60 —                   | 5.84                               | 0.87 |
| Prestwich ...              | 23,881                  | 26,100         | 5,724                                                  | 5,803                                  | L. 131 I. —                        | 145 4              | 276 4                     | 280 } | L. 10.7 I. —                              | 8 —   | 18 —        | 60 }                        | 126 }              | 126 } | 252 }       | 9.6                               | L. 7 I. —                   | 5 —                | 12 }                                                                  | 43 —   | 42 —                   | —                                  | 0.53 |
| Radcliffe ...              | 24,675                  | 27,070         | 6,894                                                  | 6,923                                  | L. 172 I. 4                        | 154 5              | 326 9                     | 335 } | L. 13.2 I. —                              | 10 6  | 16 2        | 50 }                        | 165 }              | 197 } | 362 }       | 14.3                              | L. 4 I. 1                   | 8 —                | 12 }                                                                  | 36 111 | 38 —                   | 2.83                               | 0.67 |
| Rainford ...               | 3,494                   | 3,586          | 776                                                    | 797                                    | L. 20 I. —                         | 26 1               | 46 1                      | 47 }  | L. 13.1 I. —                              | 2 —   | 2 —         | 40 }                        | 22 }               | 11 }  | 33 }        | 9.2                               | L. 2 I. —                   | —                  | 2 }                                                                   | 43 —   | 42 —                   | 20.40                              | 0.83 |
| Ramsbottom ...             | 14,929                  | 15,362         | 4,222                                                  | 4,239                                  | L. 85 I. 6                         | 80 5               | 165 11                    | 176 } | L. 11.7 I. —                              | 4 —   | 9 —         | 48 }                        | 94 }               | 106 } | 200 }       | 13.3                              | L. 5 I. 1                   | 5 —                | 10 }                                                                  | 60 90  | 62 —                   | —                                  | 0.66 |
| Rawtenstall (B) ...        | 28,587                  | 28,130         | 8,079                                                  | 8,095                                  | L. 138 I. 6                        | 132 7              | 270 13                    | 283 } | L. 10.0 I. —                              | 12 6  | 18 1        | 62 }                        | 186 }              | 203 } | 389 }       | 13.8                              | L. 7 I. —                   | 8 1                | 15 }                                                                  | 55 76  | 56 —                   | 3.31                               | 0.56 |
| Rishton ...                | 6,633                   | 6,396          | 1,817                                                  | 1,843                                  | L. 30 I. —                         | 39 1               | 69 1                      | 70 }  | L. 10.9 I. —                              | 2 3   | 5 —         | 66 }                        | 44 }               | 36 }  | 80 }        | 12.5                              | L. 1 I. —                   | 1 —                | 2 }                                                                   | 28 —   | 28 —                   | —                                  | 0.46 |
| Royton ...                 | 16,689                  | 16,670         | 4,370                                                  | 4,392                                  | L. 99 I. 5                         | 113 3              | 212 8                     | 220 } | L. 13.1 I. —                              | 9 2   | 11 1        | 51 }                        | 124 }              | 131 } | 255 }       | 15.2                              | L. 10 I. —                  | 7 —                | 17 }                                                                  | 80 —   | 77 —                   | 12.93                              | 0.53 |
| Skelmersdale ...           | 6,177                   | 6,109          | 1,347                                                  | 1,573                                  | L. 47 I. 1                         | 57 2               | 104 3                     | 107 } | L. 17.5 I. —                              | 2 3   | 5 —         | 44 }                        | 44 }               | 39 }  | 83 }        | 13.5                              | L. 2 I. —                   | 1 1                | 3 }                                                                   | 28 333 | 37 —                   | —                                  | 0.65 |
| Standish-with-Langtree ... | 7,261                   | 7,461          | 1,668                                                  | 1,784                                  | L. 49 I. —                         | 45 1               | 94 1                      | 95 }  | L. 12.7 I. —                              | 2 3   | 5 —         | 50 }                        | 38 }               | 35 }  | 73 }        | 9.7                               | L. 3 I. —                   | 4 —                | 7 }                                                                   | 74 —   | 73 —                   | 30.00                              | —    |
| Stretford (B) ...          | 56,791                  | 57,230         | 13,610                                                 | 14,705                                 | L. 342 I. 18                       | 333 14             | 675 32                    | 707 } | L. 12.3 I. 1                              | 15 1  | 33 3        | 48 }                        | 319 }              | 348 } | 667 }       | 11.6                              | L. 14 I. 3                  | 16 —               | 30 }                                                                  | 44 93  | 46 —                   | 7.07                               | 0.82 |
| Swinton and Pendlebury ... | 32,761                  | 38,300         | 7,942                                                  | 8,187                                  | L. 288 I. 3                        | 226 5              | 514 8                     | 522 } | L. 13.8 I. —                              | 15 12 | 27 —        | 49 }                        | 223 }              | 203 } | 426 }       | 11.3                              | L. 15 I. 1                  | 11 1               | 26 }                                                                  | 50 250 | 53 —                   | 5.74                               | 0.42 |
| Thornton Cleveleys ...     | 10,152                  | 10,400         | 2,625                                                  | 2,717                                  | L. 50 I. 2                         | 61 2               | 111 4                     | 115 } | L. 11.0 I. —                              | 4 1   | 4 1         | 41 }                        | 68 }               | 66 }  | 134 }       | 12.8                              | L. 2 I. —                   | 3 1                | 5 }                                                                   | 45 250 | 52 —                   | —                                  | 0.67 |
| Tottington ...             | 6,532                   | 6,275          | 1,790                                                  | 1,794                                  | L. 41 I. 2                         | 41 —               | 82 2                      | 84 }  | L. 13.3 I. —                              | 1 3   | 4 —         | 45 }                        | 39 }               | 45 }  | 84 }        | 13.3                              | L. — I. 1                   | 1 —                | 1 }                                                                   | 12 500 | 23 —                   | 11.90                              | 0.31 |

TABLE 2—continued.

| URBAN DISTRICTS.           | Area<br>in<br>Statute<br>Acres. | POPULATION<br>AT ALL AGES. |                   | No. of<br>struc-<br>turally<br>separate<br>Dwell-<br>ings<br>occupied,<br>1931. | No. of<br>Private<br>Families,<br>Census,<br>1931. | BIRTHS.           |              |                |                                    | DEATHS.                                        |                 |           | INFANT MORTALITY.  |                            |                                        |                                   |        | MATERNAL<br>MORTALITY. |                           | Tuber-<br>culosis<br>of<br>Respira-<br>tory<br>System.<br>Death<br>Rate per<br>1,000<br>popul'n. |                                                             |                                     |                                |                    |                    |       |                    |      |
|----------------------------|---------------------------------|----------------------------|-------------------|---------------------------------------------------------------------------------|----------------------------------------------------|-------------------|--------------|----------------|------------------------------------|------------------------------------------------|-----------------|-----------|--------------------|----------------------------|----------------------------------------|-----------------------------------|--------|------------------------|---------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------|--------------------------------|--------------------|--------------------|-------|--------------------|------|
|                            |                                 |                            |                   |                                                                                 |                                                    | LIVE BIRTHS.      |              | STILLBIRTHS.   |                                    | Number Registered.                             |                 |           | Number Registered. |                            |                                        | Deaths of Infants under One Year. |        |                        |                           |                                                                                                  | Per 1,000<br><i>Total</i><br>(Live and<br>Still)<br>Births. | Per 1,000<br><i>Live</i><br>Births. |                                |                    |                    |       |                    |      |
|                            |                                 | Census,<br>1931.           | Estimate<br>1933. |                                                                                 |                                                    | M.                | F.           | Both<br>Sexes. | Total<br>No. of<br>Live<br>Births. | Live<br>Birth<br>Rate<br>per 1,000<br>popul'n. | M.              | F.        | Both<br>Sexes.     | Total<br>No. of<br>Deaths. | Death<br>Rate<br>per 1,000<br>popul'n. | M.                                | F.     | Both<br>Sexes          | Total<br>Leg. &<br>Illeg. |                                                                                                  |                                                             |                                     | Rate per 1,000<br>Live Births. | Leg. Illeg. Total. |                    |       |                    |      |
|                            |                                 |                            |                   |                                                                                 |                                                    |                   |              |                |                                    |                                                |                 |           |                    |                            |                                        |                                   |        |                        |                           |                                                                                                  |                                                             |                                     |                                |                    | Number Registered. |       | Number Registered. |      |
|                            |                                 |                            |                   |                                                                                 |                                                    |                   |              |                |                                    |                                                |                 |           |                    |                            |                                        |                                   |        |                        |                           |                                                                                                  |                                                             |                                     |                                |                    |                    |       |                    |      |
| Irawden ...                | 6,815                           | 2,549                      | 2,508             | 786                                                                             | 788                                                | L. 18<br>I. —     | 4<br>1       | 22<br>1        | 23                                 | 9.1                                            | L. 1<br>I. —    | —         | 1<br>—             | 1                          | 14                                     | 19                                | 33     | 13.1                   | L. 1<br>I. —              | 1<br>—                                                                                           | 1<br>1                                                      | 2                                   | 45                             | 1000               | 86                 | —     | —                  | 0.39 |
| Turton ...                 | 17,334                          | 11,847                     | 11,580            | 3,253                                                                           | 3,322                                              | L. 60<br>I. —     | 74<br>—      | 134<br>—       | 134                                | 11.5                                           | L. 4<br>I. —    | 1<br>—    | 5<br>—             | 5                          | 81                                     | 96                                | 177    | 15.2                   | L. 8<br>I. —              | 2<br>—                                                                                           | 10<br>—                                                     | 10                                  | 74                             | —                  | 74                 | —     | —                  | 0.69 |
| Tyldesley ...              | 5,175                           | 14,846                     | 19,150            | 3,399                                                                           | 3,743                                              | L. 139<br>I. 2    | 112<br>4     | 251<br>6       | 257                                | 16.2                                           | L. 5<br>I. 1    | 4<br>—    | 9<br>1             | 10                         | 98                                     | 97                                | 195    | 12.3                   | L. 11<br>I. —             | 5<br>—                                                                                           | 16<br>—                                                     | 16                                  | 63                             | —                  | 62                 | 3.89  | 3.74               | 0.69 |
| Ulverston ...              | 3,196                           | 9,234                      | 9,323             | 2,346                                                                           | 2,380                                              | L. 63<br>I. 1     | 54<br>—      | 117<br>1       | 118                                | 12.6                                           | L. 2<br>I. —    | 2<br>—    | 4<br>—             | 4                          | 63                                     | 53                                | 116    | 12.4                   | L. 2<br>I. —              | 3<br>—                                                                                           | 5<br>—                                                      | 5                                   | 42                             | —                  | 42                 | —     | —                  | 0.75 |
| Upholland ...              | 4,686                           | 5,605                      | 5,711             | 1,167                                                                           | 1,242                                              | L. 41<br>I. —     | 32<br>3      | 73<br>3        | 76                                 | 13.3                                           | L. 2<br>I. —    | 1<br>—    | 3<br>—             | 3                          | 36                                     | 29                                | 65     | 11.3                   | L. 3<br>I. —              | 2<br>—                                                                                           | .5<br>—                                                     | 5                                   | 68                             | —                  | 65                 | —     | —                  | —    |
| Urmston ...                | 4,796                           | 9,284                      | 25,283            | 2,474                                                                           | 2,578                                              | L. 147<br>I. 5    | 154<br>5     | 301<br>10      | 311                                | 14.5                                           | L. 10<br>I. —   | 5<br>—    | 15<br>—            | 15                         | 113                                    | 107                               | 220    | 10.2                   | L. 6<br>I. —              | 6<br>1                                                                                           | 12<br>1                                                     | 13                                  | 39                             | 100                | 41                 | 3.21  | 3.06               | 0.41 |
| Walton-le-Dale ...         | 4,656                           | 12,720                     | 12,970            | 3,233                                                                           | 3,265                                              | L. 75<br>I. 2     | 66<br>3      | 141<br>5       | 146                                | 11.2                                           | L. 7<br>I. —    | 2<br>—    | 9<br>—             | 9                          | 92                                     | 67                                | 159    | 12.2                   | L. 9<br>I. —              | —                                                                                                | 9<br>—                                                      | 9                                   | 63                             | —                  | 61                 | —     | —                  | 0.30 |
| Wardle ...                 | 3,192                           | 4,793                      | 4,453             | 1,091                                                                           | 1,096                                              | L. 28<br>I. 4     | 15<br>4      | 43<br>8        | 51                                 | 11.4                                           | L. 1<br>I. —    | —         | 1<br>—             | 1                          | 36                                     | 28                                | 64     | 14.3                   | L. 2<br>I. —              | 2<br>—                                                                                           | 4<br>—                                                      | 4                                   | 93                             | —                  | 78                 | —     | —                  | 0.22 |
| Waterloo-with-Seaforth ... | 987                             | 31,187                     | 30,550            | 7,014                                                                           | 7,814                                              | L. 242<br>I. 8    | 224<br>9     | 466<br>17      | 483                                | 15.8                                           | L. 8<br>I. 2    | 7<br>1    | 15<br>3            | 18                         | 204                                    | 206                               | 410    | 13.4                   | L. 19<br>I. 2             | 17<br>1                                                                                          | 36<br>3                                                     | 39                                  | 77                             | 176                | 80                 | 2.07  | 1.99               | 1.04 |
| Westhoughton ...           | 5,560                           | 16,018                     | 15,820            | 3,945                                                                           | 4,166                                              | L. 108<br>I. 3    | 112<br>2     | 220<br>5       | 225                                | 14.2                                           | L. 7<br>I. —    | 7<br>—    | 14<br>—            | 14                         | 97                                     | 90                                | 187    | 11.8                   | L. 13<br>I. —             | 9<br>—                                                                                           | 22<br>—                                                     | 22                                  | 100                            | —                  | 97                 | 8.88  | 8.36               | 0.37 |
| Whitefield ...             | 3,248                           | 9,107                      | 10,321            | 2,588                                                                           | 2,628                                              | L. 59<br>I. 2     | 60<br>3      | 119<br>5       | 124                                | 12.1                                           | L. 6<br>I. —    | 5<br>—    | 11<br>—            | 11                         | 51                                     | 57                                | 108    | 10.5                   | L. 3<br>I. —              | 2<br>—                                                                                           | 5<br>—                                                      | 5                                   | 42                             | —                  | 40                 | —     | —                  | 0.09 |
| Whitworth ...              | 4,483                           | 8,360                      | 8,206             | 2,460                                                                           | 2,467                                              | L. 54<br>I. 2     | 58<br>3      | 112<br>5       | 117                                | 14.2                                           | L. 2<br>I. —    | 2<br>—    | 4<br>—             | 4                          | 62                                     | 71                                | 133    | 16.2                   | L. 8<br>I. —              | 5<br>—                                                                                           | 13<br>—                                                     | 13                                  | 116                            | —                  | 111                | —     | —                  | 0.73 |
| Widnes (B) ...             | 5,760                           | 40,619                     | 41,380            | 8,534                                                                           | 9,676                                              | L. 378<br>I. 10   | 385<br>6     | 763<br>16      | 779                                | 18.8                                           | L. 16<br>I. 1   | 20<br>—   | 36<br>1            | 37                         | 244                                    | 239                               | 483    | 11.6                   | L. 25<br>I. —             | 24<br>—                                                                                          | 49<br>—                                                     | 49                                  | 64                             | —                  | 62                 | —     | —                  | 0.94 |
| Withnell ...               | 3,705                           | 3,040                      | 2,903             | 792                                                                             | 878                                                | L. 22<br>I. 2     | 8<br>2       | 30<br>4        | 34                                 | 11.7                                           | L. 2<br>I. —    | 1<br>—    | 3<br>—             | 3                          | 13                                     | 22                                | 35     | 12.0                   | L. 1<br>I. —              | —                                                                                                | 1<br>—                                                      | 1                                   | 33                             | —                  | 29                 | 29.41 | 27.02              | —    |
| Worsley ...                | 7,242                           | 14,502                     | 22,427            | 3,959                                                                           | 4,029                                              | L. 120<br>I. 4    | 115<br>2     | 235<br>6       | 241                                | 11.7                                           | L. 7<br>I. —    | 6<br>—    | 13<br>—            | 13                         | 132                                    | 147                               | 279    | 13.5                   | L. 8<br>I. 1              | 5<br>—                                                                                           | 13<br>1                                                     | 14                                  | 55                             | 166                | 58                 | —     | —                  | 0.19 |
| Total Urban Districts ...  | 367,425                         | 1,530,015                  | 1,570,232         | 384,626                                                                         | 399,244                                            | L. 9891<br>I. 326 | 9,547<br>370 | 19,438<br>696  | 20,134                             | 12.92                                          | L. 554<br>I. 21 | 492<br>20 | 1046<br>41         | 1,087                      | 10,199                                 | 10,455                            | 20,654 | 13.26                  | L. 745<br>I. 43           | 580<br>43                                                                                        | 1325<br>86                                                  | 1,411                               | 68                             | 123                | 70                 | 5.41  | 5.23               | 0.58 |



TABLE 2—continued.

| RURAL DISTRICTS.    | POPULATION AT ALL AGES. |               | No. of structurally separate dwellings occupied, Census, 1931. | No. of Private Families, Census, 1931. | BIRTHS.        |                    |          |                           | DEATHS.            |      | INFANT MORTALITY.         |                    |         |                                   |    |     | MATERNAL MORTALITY. |                             | Tuberculosis of Respiratory System. Death Rate per 1,000 popul'n. |                        |                                          |         |        |     |     |     |       |       |       |      |
|---------------------|-------------------------|---------------|----------------------------------------------------------------|----------------------------------------|----------------|--------------------|----------|---------------------------|--------------------|------|---------------------------|--------------------|---------|-----------------------------------|----|-----|---------------------|-----------------------------|-------------------------------------------------------------------|------------------------|------------------------------------------|---------|--------|-----|-----|-----|-------|-------|-------|------|
|                     | Area in Statute Acres.  | Census, 1931. |                                                                |                                        | Estimate 1933. | LIVE BIRTHS.       |          |                           | STILLBIRTHS.       |      |                           | Number Registered. |         | Deaths of Infants under One Year. |    |     |                     |                             |                                                                   | Per 1,000 Live Births. | Per 1,000 Total (Live and Still) Births. |         |        |     |     |     |       |       |       |      |
|                     |                         |               |                                                                |                                        |                | Number Registered. |          |                           | Number Registered. |      |                           | M.                 | F.      | Total No. of Deaths.              | M. | F.  | Total Leg. & Illeg. | Rate per 1,000 Live Births. |                                                                   |                        |                                          |         |        |     |     |     |       |       |       |      |
|                     |                         |               |                                                                |                                        |                | M.                 | F.       | Total No. of Live Births. | M.                 | F.   | Total No. of Stillbirths. |                    |         |                                   |    |     |                     |                             |                                                                   |                        |                                          |         |        |     |     |     |       |       |       |      |
| *Barton-upon-Irwell | —                       | 15,712        | —                                                              | 4,210                                  | 4,252          | L. 27<br>I. 7      | 36<br>3  | 63<br>10                  | } 73               | 15.5 | L. 5<br>I. —              | 1<br>—             | 6<br>—  | } 6                               | 75 | 24  | 35                  | 59                          | 12.5                                                              | L. 2<br>I. —           | 4<br>—                                   | 6<br>—  | } 6    | 95  | —   | 82  | —     | —     | 0.42  |      |
| Blackburn           | ...                     | 11,230        | 11,520                                                         | 2,827                                  | 2,845          | L. 68<br>I. 1      | 62<br>1  | 130<br>2                  | } 132              | 11.4 | L. 4<br>I. —              | 1<br>—             | 5<br>—  | } 5                               | 36 | 60  | 73                  | 133                         | 11.5                                                              | L. 2<br>I. —           | —                                        | 2<br>—  | } 2    | 15  | —   | 15  | —     | —     | 0.52  |      |
| Burnley             | ...                     | 17,521        | 17,660                                                         | 5,027                                  | 5,047          | L. 141<br>I. 3     | 97<br>3  | 238<br>6                  | } 244              | 13.8 | L. 6<br>I. 2              | 6<br>—             | 12<br>2 | } 14                              | 54 | 112 | 116                 | 228                         | 12.9                                                              | L. 10<br>I. —          | 1<br>—                                   | 11<br>— | } 11   | 46  | —   | 45  | 3.87  | 0.50  |       |      |
| †Bury               | ...                     | 8,845         | —                                                              | 2,465                                  | 2,496          | L. 24<br>I. 1      | 33<br>1  | 57<br>2                   | } 59               | 13.0 | L. —<br>I. —              | 4<br>—             | 4<br>—  | } 4                               | 63 | 40  | 32                  | 72                          | 15.9                                                              | L. 7<br>I. —           | 2<br>—                                   | 9<br>—  | } 9    | 137 | —   | 152 | 16.94 | 15.87 | 0.22  |      |
| Chorley             | ...                     | 22,043        | 22,240                                                         | 5,498                                  | 5,615          | L. 124<br>I. 8     | 139<br>7 | 263<br>15                 | } 278              | 12.5 | L. 8<br>I. 1              | 10<br>—            | 18<br>1 | } 19                              | 63 | 136 | 155                 | 291                         | 13.0                                                              | L. 13<br>I. —          | 9<br>1                                   | 22<br>1 | } 23   | 83  | 66  | 82  | 10.79 | 10.10 | 0.13  |      |
| Clitheroe           | ...                     | 8,644         | 8,805                                                          | 1,569                                  | 1,576          | L. 37<br>I. 2      | 39<br>—  | 76<br>2                   | } 78               | 8.8  | L. 1<br>I. —              | —<br>—             | 1<br>—  | } 1                               | 12 | 41  | 39                  | 80                          | 9.0                                                               | L. 3<br>I. —           | —<br>—                                   | 3<br>—  | } 3    | 39  | —   | 38  | 12.81 | 12.65 | 0.34  |      |
| Fylde...            | ...                     | 15,750        | 18,160                                                         | 3,851                                  | 3,938          | L. 104<br>I. 3     | 120<br>5 | 224<br>8                  | } 232              | 12.7 | L. 9<br>I. 1              | 6<br>1             | 15<br>2 | } 17                              | 68 | 108 | 123                 | 231                         | 12.7                                                              | L. 10<br>I. 2          | 5<br>2                                   | 15<br>4 | } 19   | 66  | 500 | 81  | 4.31  | 4.01  | 0.44  |      |
| Garstang            | ...                     | 11,562        | 11,640                                                         | 2,773                                  | 2,796          | L. 61<br>I. 1      | 73<br>4  | 134<br>5                  | } 139              | 11.9 | L. 5<br>I. —              | 1<br>—             | 6<br>—  | } 6                               | 41 | 77  | 65                  | 142                         | 12.1                                                              | L. 4<br>I. —           | 4<br>—                                   | 8<br>—  | } 8    | 59  | —   | 57  | 14.38 | 13.79 | 0.17  |      |
| Lancaster           | ...                     | 9,703         | 9,564                                                          | 2,396                                  | 2,454          | L. 66<br>I. 2      | 67<br>3  | 133<br>5                  | } 138              | 14.4 | L. 3<br>I. —              | 2<br>—             | 5<br>—  | } 5                               | 34 | 61  | 78                  | 139                         | 14.5                                                              | L. 4<br>I. —           | 3<br>1                                   | 7<br>1  | } 8    | 52  | 200 | 57  | 7.24  | 6.99  | 0.41  |      |
| †Leigh              | ...                     | 11,424        | —                                                              | 2,622                                  | 2,757          | L. 51<br>I. 2      | 50<br>—  | 101<br>2                  | } 103              | 12.1 | L. 1<br>I. —              | —<br>—             | 1<br>—  | } 1                               | 9  | 45  | 39                  | 84                          | 9.9                                                               | L. 4<br>I. 1           | 1<br>—                                   | 5<br>1  | } 6    | 49  | 500 | 58  | —     | —     | 0.11  |      |
| Limehurst           | ...                     | 8,758         | 8,536                                                          | 2,166                                  | 2,201          | L. 52<br>I. 1      | 42<br>3  | 94<br>4                   | } 98               | 11.4 | L. 3<br>I. 1              | 1<br>—             | 4<br>1  | } 5                               | 48 | 46  | 57                  | 103                         | 12.0                                                              | L. 4<br>I. —           | 1<br>—                                   | 5<br>—  | } 5    | 53  | —   | 51  | —     | —     | 0.46  |      |
| Lunesdale           | ...                     | 6,575         | 6,574                                                          | 1,629                                  | 1,647          | L. 48<br>I. 1      | 38<br>2  | 86<br>3                   | } 89               | 13.5 | L. —<br>I. —              | —<br>—             | —<br>—  | } —                               | —  | 46  | 37                  | 83                          | 83                                                                | 12.6                   | L. 7<br>I. 1                             | 1<br>1  | 8<br>— | } 9 | 93  | 333 | 101   | 11.23 | 11.23 | 0.30 |
| Preston             | ...                     | 29,758        | 31,710                                                         | 6,967                                  | 7,073          | L. 204<br>I. 4     | 214<br>7 | 418<br>11                 | } 429              | 13.5 | L. 10<br>I. 2             | 10<br>—            | 20<br>2 | } 22                              | 48 | 172 | 194                 | 366                         | 11.5                                                              | L. 12<br>I. 1          | 9<br>—                                   | 21<br>1 | } 22   | 50  | 90  | 51  | 4.66  | 4.43  | 0.53  |      |
| Ulverston           | ...                     | 16,719        | 16,430                                                         | 4,391                                  | 4,421          | L. 108<br>I. 5     | 96<br>3  | 204<br>8                  | } 212              | 12.9 | L. 3<br>I. —              | 7<br>1             | 10<br>1 | } 11                              | 49 | 117 | 112                 | 229                         | 13.9                                                              | L. 7<br>I. —           | 3<br>1                                   | 10<br>1 | } 11   | 49  | 125 | 51  | —     | —     | 0.36  |      |
| Warrington          | ...                     | 16,035        | 15,530                                                         | 3,267                                  | 3,399          | L. 91<br>I. 2      | 111<br>2 | 202<br>4                  | } 206              | 13.1 | L. 4<br>I. —              | 7<br>—             | 11<br>— | } 11                              | 50 | 83  | 76                  | 159                         | 10.1                                                              | L. 2<br>I. —           | 2<br>2                                   | 4<br>2  | } 6    | 19  | 500 | 29  | —     | —     | 0.51  |      |
| West Lancashire     | ...                     | 22,088        | 26,190                                                         | 5,318                                  | 5,460          | L. 145<br>I. 4     | 162<br>4 | 307<br>8                  | } 315              | 12.0 | L. 7<br>I. 1              | 11<br>1            | 18<br>2 | } 20                              | 59 | 171 | 142                 | 313                         | 11.9                                                              | L. 21<br>I. —          | 6<br>1                                   | 27<br>1 | } 28   | 87  | 125 | 88  | 3.17  | 2.98  | 0.38  |      |

| RURAL DISTRICTS.            | POPULATION AT ALL AGES. |                  | No. of structurally separate dwellings occupied, 1931. | No. of Private Families, Census, 1931. | BIRTHS.             |                    |               | DEATHS.                   |                    |             | INFANT MORTALITY.           |                                                  |                    |        |                                   | MATERNAL MORTALITY.       |                      | Tuber- culosis of Respira- tory System. Death Rate per 1,000 popul'n. |                               |                                     |                                                 |    |    |             |                     |                             |                    |
|-----------------------------|-------------------------|------------------|--------------------------------------------------------|----------------------------------------|---------------------|--------------------|---------------|---------------------------|--------------------|-------------|-----------------------------|--------------------------------------------------|--------------------|--------|-----------------------------------|---------------------------|----------------------|-----------------------------------------------------------------------|-------------------------------|-------------------------------------|-------------------------------------------------|----|----|-------------|---------------------|-----------------------------|--------------------|
|                             | Area in Statute Acres.  | Census, 1931.    |                                                        |                                        | Estimate 1933.      | LIVE BIRTHS.       |               |                           | STILLBIRTHS.       |             |                             | Number Registered.                               |                    |        | Deaths of Infants under One Year. |                           |                      |                                                                       |                               | Per 1,000 <i>Total Live</i> Births. | Per 1,000 <i>Total (Live and Still)</i> Births. |    |    |             |                     |                             |                    |
|                             |                         |                  |                                                        |                                        |                     | Number Registered. |               |                           | Number Registered. |             |                             | Still- birth Rate per 1,000 <i>Total Births.</i> | Number Registered. |        |                                   | Total No. of Live Births. | Total No. of Deaths. |                                                                       | Death Rate per 1,000 popul'n. |                                     |                                                 | M. | F. | Both Sexes. | Total Leg. & Illeg. | Rate per 1,000 Live Births. | Leg. Illeg. Total. |
|                             |                         |                  |                                                        |                                        |                     | M.                 | F.            | Total No. of Live Births. | M.                 | F.          | Total No. of Still- births. |                                                  |                    |        |                                   |                           |                      |                                                                       |                               |                                     |                                                 |    |    |             |                     |                             |                    |
|                             |                         |                  |                                                        |                                        |                     |                    |               |                           |                    |             |                             |                                                  |                    |        |                                   |                           |                      |                                                                       |                               |                                     |                                                 |    |    |             |                     |                             |                    |
| Whiston ... ..              | 30,107                  | 22,873           | 21,470                                                 | 5,042                                  | L. 122<br>I. 3      | 137<br>2           | 259<br>5      | L. 8<br>I. —              | 8<br>—             | 16<br>—     | 57                          | 120                                              | 113                | 233    | 10.8                              | L. 7<br>I. 1              | 5<br>—               | 12<br>1                                                               | 3.57                          | 0.51                                |                                                 |    |    |             |                     |                             |                    |
| Wigan ... ..                | 11,696                  | 6,126            | 6,469                                                  | 1,580                                  | L. 47<br>I. 1       | 43<br>1            | 90<br>2       | L. 1<br>I. —              | 4<br>—             | 5<br>—      | 51                          | 42                                               | 41                 | 83     | 12.8                              | L. 4<br>I. 1              | 2<br>—               | 6<br>1                                                                | —                             | 0.61                                |                                                 |    |    |             |                     |                             |                    |
| Total Rural Districts ...   | 677,187                 | 261,366          | 232,498                                                | 64,599                                 | L. 1,520<br>I. 51   | 1,559<br>51        | 3,079<br>102  | L. 78<br>I. 8             | 79<br>3            | 157<br>11   | 50                          | 1,501                                            | 1,527              | 3,028  | 12.09                             | L. 123<br>I. 6            | 58<br>9              | 181<br>15                                                             | 4.71                          | 0.40                                |                                                 |    |    |             |                     |                             |                    |
| Total Urban Districts ...   | 367,425                 | 1,530,015        | 1,570,232                                              | 384,626                                | L. 9,891<br>I. 326  | 9,547<br>370       | 19,438<br>696 | L. 554<br>I. 21           | 492<br>20          | 1,046<br>41 | 51                          | 10,199                                           | 10,455             | 20,654 | 13.26                             | L. 745<br>I. 43           | 580<br>43            | 1,325<br>86                                                           | 5.41                          | 0.58                                |                                                 |    |    |             |                     |                             |                    |
| Total Administrative County | (a)<br>1,044,612        | (b)<br>1,791,381 | (a)<br>1,802,730                                       | 463,843                                | L. 11,411<br>I. 377 | 11,106<br>421      | 22,517<br>798 | L. 632<br>I. 29           | 571<br>23          | 1,203<br>52 | 51                          | 11,700                                           | 11,982             | 23,682 | 13.09                             | L. 868<br>I. 49           | 638<br>52            | 1,506<br>101                                                          | 5.12                          | 0.55                                |                                                 |    |    |             |                     |                             |                    |

(a) Area and Population of Administrative County as constituted at 31st December, 1933.

(b) Population of districts as constituted at Census, 1931.

NOTE.—For the purpose of calculating the birth and death rates of the County an adjustment of population has been necessary owing to certain alterations of district boundaries on the 1st April and 1st October, and the Registrar-General has supplied the following totals for this purpose :—Rural Districts ... 250,320. Urban Districts ... 1,557,480. Administrative County ... 1,807,800.

ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 3—CAUSES OF DEATH IN EACH URBAN AND RURAL DISTRICT IN THE YEAR 1933.

| URBAN DISTRICTS.      |                             | MORTALITY FROM SUBJOINED CAUSES. |          |                |                 |             |            |                         |                       |                                     |                             |           |                                                  |                            |           |                          |                |           |                             |             |                        |                             |               |                                 |               |                     |                              |                           |                              |                   |                         |                                                           |           |          |                 |                         |                                |     |     |
|-----------------------|-----------------------------|----------------------------------|----------|----------------|-----------------|-------------|------------|-------------------------|-----------------------|-------------------------------------|-----------------------------|-----------|--------------------------------------------------|----------------------------|-----------|--------------------------|----------------|-----------|-----------------------------|-------------|------------------------|-----------------------------|---------------|---------------------------------|---------------|---------------------|------------------------------|---------------------------|------------------------------|-------------------|-------------------------|-----------------------------------------------------------|-----------|----------|-----------------|-------------------------|--------------------------------|-----|-----|
|                       |                             | Typhoid and paratyphoid fever.   | Measles. | Scarlet fever. | Whooping Cough. | Diphtheria. | Influenza. | Erythematous lethargia. | Cerebro-spinal fever. | Tuberculosis of respiratory system. | Other tuberculous diseases. | Syphilis. | General paralysis of the insane, tabes dorsalis. | Cancer, malignant disease. | Diabetes. | Cerebral hæmorrhage, &c. | Heart disease. | Aneurysm. | Other circulatory diseases. | Bronchitis. | Pneumonia (all forms). | Other respiratory diseases. | Peptic ulcer. | Diarrhoea, &c. (under 2 years). | Appendicitis. | Cirrhosis of liver. | Other diseases of liver, &c. | Other digestive diseases. | Acute and chronic nephritis. | Puerperal sepsis. | Other puerperal causes. | Congenital debility, premature birth, malformations, etc. | Senility. | Suicide. | Other violence. | Other defined diseases. | Causes ill-defined or unknown. |     |     |
| URBAN DISTRICTS.      | Abram ...                   | ...                              | ...      | ...            | 1               | ...         | 1          | ...                     | 3                     | 2                                   | ...                         | ...       | 4                                                | ...                        | 8         | 10                       | ...            | 3         | 6                           | 11          | ...                    | ...                         | 3             | 1                               | 1             | ...                 | 1                            | ...                       | ...                          | 3                 | ...                     | ...                                                       | 4         | 8        | ...             | 6                       | 4                              | 1   |     |
|                       | Accrington (B) ...          | ...                              | 2        | 3              | ...             | ...         | 28         | 1                       | 1                     | 20                                  | 2                           | 1         | 5                                                | 89                         | 7         | 39                       | 160            | 1         | 26                          | 22          | 34                     | 1                           | ...           | ...                             | ...           | 4                   | 2                            | 3                         | 8                            | 19                | 1                       | ...                                                       | 11        | 33       | 8               | 12                      | 47                             | 1   |     |
|                       | Adlington ...               | ...                              | ...      | ...            | 1               | ...         | 6          | ...                     | 3                     | 3                                   | 1                           | ...       | ...                                              | 4                          | ...       | 4                        | 13             | ...       | 1                           | 2           | 2                      | ...                         | ...           | ...                             | ...           | ...                 | ...                          | ...                       | 2                            | 2                 | ...                     | ...                                                       | 2         | 1        | ...             | 2                       | 5                              | ... |     |
|                       | Ashton-in-Makerfield ...    | ...                              | 3        | ...            | 3               | ...         | 14         | 1                       | 1                     | 6                                   | 2                           | ...       | ...                                              | 13                         | 1         | 18                       | 57             | ...       | 5                           | 25          | 23                     | ...                         | ...           | ...                             | 2             | 1                   | 4                            | 4                         | 4                            | 1                 | 3                       | 12                                                        | 25        | 1        | 12              | 24                      | 2                              |     |     |
|                       | Ashton-under-Lyne (B) ...   | ...                              | 1        | ...            | 1               | 2           | 29         | 1                       | 1                     | 37                                  | 9                           | 2         | 5                                                | 104                        | 7         | 36                       | 181            | 1         | 20                          | 31          | 53                     | 4                           | 3             | 4                               | 9             | 4                   | 3                            | 13                        | 27                           | 2                 | ...                     | 20                                                        | 19        | 11       | 19              | 42                      | ...                            |     |     |
|                       | Aspull ...                  | ...                              | ...      | ...            | 1               | ...         | 4          | ...                     | 6                     | 6                                   | 1                           | ...       | ...                                              | 11                         | 2         | 4                        | 20             | 1         | 3                           | 4           | 12                     | ...                         | ...           | 2                               | ...           | ...                 | ...                          | ...                       | 1                            | 3                 | ...                     | ...                                                       | 5         | 1        | ...             | 11                      | 1                              |     |     |
|                       | Atherton ...                | ...                              | ...      | ...            | 2               | ...         | 18         | 1                       | ...                   | 11                                  | 2                           | 1         | ...                                              | 34                         | 7         | 12                       | 42             | 1         | 8                           | 14          | 16                     | 5                           | 1             | 2                               | ...           | 1                   | 4                            | 3                         | 11                           | ...               | ...                     | 10                                                        | 6         | 3        | 12              | 13                      | 1                              |     |     |
|                       | Audenshaw ...               | ...                              | ...      | ...            | ...             | ...         | 3          | ...                     | 1                     | 3                                   | 2                           | ...       | 1                                                | 17                         | 2         | 11                       | 22             | ...       | 3                           | 4           | 6                      | 2                           | 1             | ...                             | 1             | 1                   | 2                            | 1                         | 4                            | ...               | ...                     | 3                                                         | 2         | ...      | 5               | 5                       | ...                            |     |     |
|                       | Bacup (B) ...               | ...                              | ...      | ...            | 1               | 1           | 12         | ...                     | ...                   | 14                                  | 2                           | 1         | 1                                                | 29                         | 2         | 25                       | 62             | 1         | 13                          | 24          | 14                     | 2                           | ...           | ...                             | ...           | 2                   | 1                            | 3                         | 14                           | 8                 | ...                     | ...                                                       | 10        | 26       | 1               | 15                      | 19                             | 1   |     |
|                       | Barrowford ...              | ...                              | ...      | ...            | ...             | 3           | 3          | ...                     | ...                   | 1                                   | 1                           | 1         | ...                                              | 11                         | ...       | 6                        | 26             | ...       | 6                           | ...         | 3                      | ...                         | ...           | ...                             | 1             | ...                 | ...                          | ...                       | ...                          | 4                 | 5                       | ...                                                       | ...       | 5        | 4               | ...                     | 4                              | 9   | ... |
|                       | Billinge and Winstanley ... | ...                              | ...      | ...            | ...             | 1           | 3          | ...                     | ...                   | 3                                   | 4                           | ...       | ...                                              | 7                          | 1         | 4                        | 7              | ...       | 1                           | ...         | 6                      | ...                         | ...           | 1                               | ...           | ...                 | ...                          | ...                       | ...                          | 1                 | ...                     | ...                                                       | ...       | 3        | 7               | ...                     | 2                              | 4   | 2   |
|                       | Blackrod ...                | ...                              | ...      | ...            | ...             | ...         | 3          | ...                     | ...                   | 2                                   | 1                           | ...       | ...                                              | 4                          | 2         | 3                        | 5              | ...       | 6                           | 2           | 3                      | ...                         | ...           | ...                             | ...           | ...                 | ...                          | ...                       | ...                          | 1                 | ...                     | ...                                                       | ...       | 3        | 1               | ...                     | 1                              | 2   | ... |
|                       | Brierfield ...              | ...                              | 4        | ...            | 2               | 1           | 3          | ...                     | ...                   | 4                                   | ...                         | 4         | 3                                                | 11                         | 1         | 7                        | 37             | ...       | 4                           | 1           | 13                     | 1                           | ...           | 1                               | 1             | ...                 | ...                          | ...                       | ...                          | 4                 | 6                       | 1                                                         | ...       | 5        | 1               | 1                       | 2                              | 10  | ... |
|                       | Carnforth ...               | ...                              | ...      | ...            | ...             | ...         | ...        | ...                     | ...                   | ...                                 | 1                           | ...       | ...                                              | 4                          | ...       | 1                        | 2              | ...       | 2                           | 4           | ...                    | ...                         | ...           | ...                             | ...           | ...                 | ...                          | ...                       | ...                          | 1                 | ...                     | ...                                                       | 1         | 2        | 12              | ...                     | 4                              | 2   | ... |
|                       | Chadderton ...              | ...                              | ...      | 2              | 3               | 1           | 20         | ...                     | ...                   | 16                                  | 5                           | 1         | 2                                                | 37                         | 7         | 26                       | 98             | ...       | 17                          | 21          | 13                     | 4                           | 3             | 1                               | 1             | ...                 | 1                            | 11                        | 11                           | 1                 | ...                     | 1                                                         | 9         | 8        | 10              | 30                      | 1                              |     |     |
| Chorley (B) ...       | ...                         | ...                              | 2        | 3              | 1               | 28          | 1          | ...                     | 13                    | 6                                   | ...                         | 1         | 43                                               | 5                          | 20        | 90                       | 1              | 27        | 9                           | 26          | 4                      | 3                           | 6             | 1                               | 1             | 1                   | 1                            | 12                        | 15                           | ...               | ...                     | 2                                                         | 26        | 5        | 2               | 9                       | 40                             | ... |     |
| Church ...            | ...                         | ...                              | ...      | 1              | 1               | 5           | ...        | ...                     | 3                     | 1                                   | ...                         | 1         | 14                                               | 1                          | 5         | 20                       | ...            | 4         | 2                           | 4           | 1                      | ...                         | ...           | ...                             | 1             | ...                 | ...                          | ...                       | 1                            | 4                 | ...                     | 1                                                         | 3         | 8        | ...             | 3                       | 9                              | ... |     |
| Clayton-le-Moors ...  | ...                         | 1                                | ...      | ...            | ...             | 7           | 1          | 1                       | 1                     | 1                                   | ...                         | 1         | 18                                               | 5                          | 6         | 20                       | ...            | 7         | 6                           | 5           | 1                      | 2                           | ...           | ...                             | ...           | ...                 | 1                            | 2                         | ...                          | ...               | ...                     | 1                                                         | 6         | 3        | ...             | ...                     | 12                             | ... |     |
| Clitheroe (B) ...     | ...                         | ...                              | ...      | ...            | 1               | 6           | ...        | ...                     | 2                     | 1                                   | 1                           | 1         | 17                                               | 1                          | 9         | 34                       | ...            | 10        | 8                           | 7           | ...                    | ...                         | 1             | 1                               | 1             | ...                 | 2                            | 4                         | 13                           | ...               | ...                     | 2                                                         | 3         | 5        | 4               | 6                       | 17                             | ... |     |
| Colne (B) ...         | ...                         | 1                                | 7        | ...            | 3               | 9           | ...        | ...                     | 18                    | 7                                   | ...                         | 1         | 44                                               | 7                          | 18        | 78                       | ...            | 20        | 11                          | 15          | 2                      | 2                           | 4             | 5                               | 1             | 8                   | 10                           | 10                        | 1                            | 1                 | 14                      | 11                                                        | 7         | 9        | 20              | ...                     |                                |     |     |
| Crompton ...          | ...                         | ...                              | ...      | ...            | 2               | 17          | ...        | ...                     | 7                     | 2                                   | ...                         | ...       | 15                                               | 1                          | 12        | 43                       | ...            | 5         | 14                          | 12          | 1                      | 4                           | ...           | 3                               | 1             | ...                 | 4                            | 9                         | 1                            | 1                 | 5                       | 10                                                        | 3         | 9        | 21              | ...                     |                                |     |     |
| Croston ...           | ...                         | ...                              | ...      | ...            | ...             | 5           | ...        | ...                     | 1                     | ...                                 | ...                         | ...       | 5                                                | ...                        | 1         | 8                        | ...            | 1         | 1                           | ...         | ...                    | 1                           | ...           | ...                             | ...           | ...                 | 2                            | 1                         | 1                            | ...               | ...                     | ...                                                       | ...       | ...      | ...             | 1                       | 1                              | ... |     |
| Dalton-in-Furness ... | ...                         | ...                              | ...      | ...            | ...             | 9           | ...        | ...                     | 13                    | 2                                   | ...                         | ...       | 13                                               | 4                          | 14        | 27                       | 1              | 13        | 7                           | 5           | 4                      | 1                           | 1             | 1                               | ...           | 1                   | 2                            | 1                         | 4                            | 4                 | ...                     | 3                                                         | 7         | 12       | ...             | 3                       | 10                             | ... |     |

Includes—(a) 2 deaths from Polio-encephalitis; (b) 2 deaths from Poliomyelitis.



MORTALITY FROM SUBJOINED CAUSES.

| URBAN DISTRICTS.   | Total No. of Deaths from all causes. | MORTALITY FROM SUBJOINED CAUSES. |          |                |                 |             |            |                          |                       |                                     |                             |           |                                                  |                            |           |                          |                |           |                             |             |                        |                             |               |                                |               |                     |                              |                           |                              |                   |                         |                                                           |           |          |                 |                         |                                |     |     |
|--------------------|--------------------------------------|----------------------------------|----------|----------------|-----------------|-------------|------------|--------------------------|-----------------------|-------------------------------------|-----------------------------|-----------|--------------------------------------------------|----------------------------|-----------|--------------------------|----------------|-----------|-----------------------------|-------------|------------------------|-----------------------------|---------------|--------------------------------|---------------|---------------------|------------------------------|---------------------------|------------------------------|-------------------|-------------------------|-----------------------------------------------------------|-----------|----------|-----------------|-------------------------|--------------------------------|-----|-----|
|                    |                                      | Typhoid and paratyphoid fevers.  | Measles. | Scarlet fever. | Whooping Cough. | Diphtheria. | Influenza. | Encephalitis lethargica. | Cerebro-spinal fever. | Tuberculosis of respiratory system. | Other tuberculous diseases. | Syphilis. | General paralysis of the insane, tabes dorsalis. | Cancer, malignant disease. | Diabetes. | Cerebral hæmorrhage, &c. | Heart disease. | Aneurysm. | Other circulatory diseases. | Bronchitis. | Pneumonia (all forms). | Other respiratory diseases. | Peptic ulcer. | Diarrhœa, &c. (under 2 years). | Appendicitis. | Cirrhosis of liver. | Other diseases of liver, &c. | Other digestive diseases. | Acute and chronic nephritis. | Puerperal sepsis. | Other puerperal causes. | Congenital debility, premature birth, malformations, etc. | Senility. | Suicide. | Other violence. | Other defined diseases. | Causes ill-defined or unknown. |     |     |
| Denton ...         | 231                                  | ...                              | ...      | ...            | ...             | 1           | 6          | ...                      | ...                   | 10                                  | 2                           | ...       | 1                                                | 23                         | 2         | 7                        | 67             | ...       | ...                         | 9           | 9                      | 14                          | 3             | 3                              | 2             | 1                   | 1                            | 1                         | 3                            | 8                 | 1                       | 1                                                         | 10        | 9        | 4               | 8                       | 25                             | ... |     |
| Droylsden ...      | 198                                  | ...                              | 1        | ...            | 2               | ...         | 8          | ...                      | ...                   | 11                                  | ...                         | ...       | ...                                              | 27                         | 3         | 12                       | 40             | ...       | ...                         | 6           | 17                     | 11                          | 3             | 1                              | 1             | ...                 | 2                            | ...                       | 1                            | 10                | 1                       | 1                                                         | 8         | 9        | 5               | 6                       | 12                             | ... |     |
| Eccles (B) ...     | 486                                  | ...                              | ...      | 1              | 2               | ...         | 14         | 1                        | ...                   | 27                                  | 6                           | 1         | 2                                                | 59                         | 4         | 32                       | 93             | 3         | 3                           | 22          | 27                     | 38                          | 4             | 1                              | 2             | 5                   | ...                          | 2                         | 7                            | 10                | 1                       | 2                                                         | 16        | 31       | 1               | 33                      | 37                             | ... |     |
| Failsworth... ..   | 210                                  | ...                              | ...      | ...            | ...             | ...         | 16         | ...                      | 1                     | 12                                  | 2                           | ...       | 1                                                | 24                         | 5         | 9                        | 36             | 1         | ...                         | 9           | 6                      | 21                          | ...           | 1                              | 2             | ...                 | ...                          | 2                         | 6                            | 9                 | ...                     | ...                                                       | 7         | 10       | 3               | 9                       | 18                             | ... |     |
| Farnworth... ..    | 404                                  | ...                              | ...      | 1              | ...             | ...         | 28         | 1                        | 1                     | 12                                  | 4                           | 1         | 1                                                | 53                         | 4         | 13                       | 78             | ...       | ...                         | 24          | 35                     | 29                          | 6             | ...                            | 1             | 1                   | ...                          | 2                         | 8                            | 11                | 1                       | 2                                                         | 17        | 30       | 5               | 10                      | 20                             | 5   |     |
| Fleetwood (B) ...  | 242                                  | ...                              | 6        | ...            | ...             | ...         | 8          | 2                        | ...                   | 18                                  | 4                           | ...       | 1                                                | 19                         | 3         | 7                        | 47             | ...       | ...                         | 8           | 15                     | 14                          | 1             | 2                              | 2             | 2                   | 1                            | 1                         | 5                            | 11                | 1                       | 1                                                         | 18        | 18       | 3               | 7                       | 17                             | ... |     |
| Formby ... ..      | 93                                   | ...                              | ...      | 1              | ...             | ...         | 2          | ...                      | ...                   | 5                                   | ...                         | ...       | 1                                                | 11                         | 2         | 7                        | 16             | ...       | ...                         | 5           | 3                      | ...                         | 1             | ...                            | ...           | ...                 | 1                            | 2                         | 4                            | 3                 | ...                     | ...                                                       | 6         | 5        | 1               | 5                       | 12                             | ... |     |
| Fulwood ... ..     | 105                                  | ...                              | ...      | ...            | ...             | ...         | 5          | ...                      | ...                   | ...                                 | 2                           | ...       | ...                                              | 15                         | ...       | 3                        | 34             | ...       | ...                         | 6           | 5                      | 1                           | ...           | 1                              | 1             | ...                 | ...                          | ...                       | 3                            | 6                 | ...                     | ...                                                       | 2         | 3        | 1               | 4                       | 13                             | ... |     |
| Golborne ... ..    | 93                                   | ...                              | ...      | ...            | 4               | 1           | 4          | ...                      | ...                   | 8                                   | ...                         | ...       | ...                                              | 8                          | ...       | 3                        | 20             | ...       | ...                         | 7           | 5                      | 7                           | 2             | 1                              | ...           | ...                 | ...                          | ...                       | 2                            | 3                 | ...                     | 1                                                         | 2         | 1        | ...             | 5                       | 7                              | 2   |     |
| Grange-over-Sands  | 42                                   | ...                              | ...      | ...            | ...             | ...         | 2          | ...                      | ...                   | 1                                   | ...                         | ...       | ...                                              | 5                          | 1         | 5                        | 7              | ...       | ...                         | 6           | 3                      | 2                           | 1             | 1                              | ...           | ...                 | 1                            | ...                       | 1                            | 1                 | ...                     | 2                                                         | ...       | ...      | ...             | 1                       | 1                              | 1   |     |
| Great Crosby ...   | 232                                  | ...                              | ...      | 2              | 1               | 2           | 13         | ...                      | 1                     | 7                                   | 1                           | ...       | 1                                                | 40                         | 3         | 12                       | 51             | ...       | ...                         | 11          | 4                      | 7                           | 4             | 4                              | ...           | 1                   | ...                          | 2                         | 4                            | 11                | ...                     | ...                                                       | 14        | 9        | 2               | 4                       | 21                             | ... |     |
| Great Harwood ...  | 163                                  | ...                              | 2        | ...            | ...             | ...         | 8          | ...                      | ...                   | 3                                   | 5                           | ...       | ...                                              | 17                         | 1         | 5                        | 40             | ...       | ...                         | 2           | 9                      | 9                           | 2             | 2                              | ...           | 2                   | 1                            | ...                       | 5                            | 4                 | ...                     | ...                                                       | 7         | 20       | 1               | 4                       | 14                             | ... |     |
| Haslingden (B) ... | 255                                  | ...                              | 1        | ...            | 1               | ...         | 13         | 2                        | 1                     | 5                                   | 3                           | ...       | ...                                              | 24                         | 5         | 26                       | 53             | 1         | 1                           | 11          | 9                      | 11                          | 4             | 3                              | 1             | 2                   | ...                          | 3                         | 4                            | 14                | 1                       | 2                                                         | 8         | 20       | 2               | 2                       | 21                             | 2   |     |
| Haydock ... ..     | 147                                  | ...                              | 1        | ...            | 1               | 1           | 17         | ...                      | 1                     | 3                                   | 3                           | 1         | 1                                                | 3                          | 1         | 8                        | 38             | 1         | ...                         | 9           | 5                      | 5                           | 1             | 1                              | 1             | 1                   | ...                          | ...                       | 2                            | 1                 | ...                     | 1                                                         | 1         | 9        | 4               | 2                       | 8                              | 16  | ... |
| Heywood (B) ...    | 387                                  | ...                              | ...      | ...            | 6               | 1           | 23         | 2                        | 1                     | 14                                  | 3                           | 1         | ...                                              | 45                         | 5         | 23                       | 97             | ...       | ...                         | 27          | 15                     | 7                           | 4             | 5                              | ...           | 2                   | 1                            | 2                         | 12                           | 19                | ...                     | 1                                                         | 10        | 13       | 5               | 17                      | 25                             | 1   |     |
| Hindley ... ..     | 329                                  | ...                              | 3        | ...            | 3               | 1           | 10         | 1                        | ...                   | 15                                  | 3                           | ...       | 1                                                | 35                         | 3         | 19                       | 66             | ...       | ...                         | 12          | 20                     | 37                          | 3             | ...                            | ...           | 1                   | 1                            | 3                         | 7                            | 11                | ...                     | 2                                                         | 25        | 10       | 2               | 11                      | 22                             | 2   |     |
| Horwich ... ..     | 179                                  | ...                              | 1        | 2              | ...             | ...         | 10         | ...                      | ...                   | 8                                   | 1                           | ...       | 1                                                | 17                         | ...       | 10                       | 47             | 2         | 2                           | 15          | 3                      | 6                           | 2             | 1                              | 2             | 1                   | 1                            | ...                       | 3                            | 7                 | ...                     | 1                                                         | 5         | 9        | 5               | 6                       | 13                             | ... |     |
| Huyton-with-Roby   | 60                                   | ...                              | ...      | ...            | 1               | 1           | 2          | ...                      | ...                   | 2                                   | ...                         | ...       | ...                                              | 6                          | ...       | 2                        | 10             | ...       | ...                         | 2           | 9                      | 5                           | ...           | 1                              | ...           | ...                 | ...                          | ...                       | 2                            | 2                 | ...                     | ...                                                       | ...       | 3        | 1               | 3                       | 8                              | ... |     |
| Ince-in-Makerfield | 346                                  | ...                              | 2        | 1              | 5               | ...         | 23         | 2                        | 1                     | 20                                  | 5                           | ...       | ...                                              | 23                         | 5         | 17                       | 55             | ...       | ...                         | 10          | 30                     | 49                          | 4             | 2                              | 6             | 2                   | ...                          | 3                         | 9                            | 3                 | 1                       | 4                                                         | 18        | 11       | 3               | 14                      | 17                             | 1   |     |
| Irlam ... ..       | 148                                  | ...                              | ...      | ...            | 1               | ...         | 11         | 2                        | ...                   | 9                                   | 2                           | 1         | 2                                                | 14                         | 1         | 6                        | 23             | 1         | ...                         | 11          | 7                      | 13                          | 2             | ...                            | 1             | ...                 | ...                          | 3                         | 5                            | 4                 | ...                     | 1                                                         | 7         | 2        | 1               | 9                       | c9                             | ... |     |
| Kearsley ... ..    | 166                                  | ...                              | ...      | ...            | ...             | ...         | 7          | 1                        | 2                     | 6                                   | 1                           | 1         | 1                                                | 23                         | 3         | 9                        | 30             | ...       | ...                         | 9           | 13                     | 9                           | 2             | ...                            | 1             | ...                 | 1                            | 3                         | 5                            | 1                 | ...                     | 1                                                         | 2         | 15       | 4               | 4                       | 10                             | 1   |     |
| Kirkham ... ..     | 53                                   | ...                              | ...      | ...            | ...             | ...         | 3          | ...                      | ...                   | 3                                   | ...                         | ...       | 1                                                | 4                          | 1         | 3                        | 12             | ...       | ...                         | 1           | 3                      | 3                           | ...           | ...                            | ...           | ...                 | ...                          | ...                       | ...                          | 3                 | ...                     | ...                                                       | 2         | 1        | 6               | ...                     | 1                              | 5   |     |
| Lancaster (B) ...  | 564                                  | 2                                | ...      | ...            | ...             | 5           | 32         | 1                        | 1                     | 32                                  | 4                           | 2         | 4                                                | 63                         | 5         | 41                       | 104            | ...       | ...                         | 28          | 24                     | 36                          | 8             | 6                              | 4             | 8                   | 4                            | 5                         | 15                           | 15                | ...                     | 3                                                         | 21        | 19       | 2               | 21                      | 447                            | 2   |     |
| Lees ... ..        | 68                                   | ...                              | ...      | ...            | ...             | ...         | 1          | 1                        | ...                   | 3                                   | 2                           | ...       | ...                                              | 7                          | ...       | 4                        | 20             | ...       | ...                         | 2           | 5                      | 4                           | ...           | 2                              | ...           | ...                 | ...                          | 1                         | ...                          | 4                 | ...                     | ...                                                       | 3         | 1        | ...             | 1                       | 7                              | ... |     |

Includes.—(a) 1 death from Poliomyelitis, (b) 1 death from Poliomyelitis and 2 deaths from Polio-encephalitis, (c) 1 death from Polio-encephalitis.

TABLE 3—continued.

| URBAN DISTRICTS. |                         | MORTALITY FROM SUBJOINED CAUSES.  |          |                |                    |             |            |                             |                          |                                        |                                |           |                                                        |                                 |           |                              |                |           |                                |             |                           |                                |               |                                   |               |                     |                                 |                              |                                 |                   |                                                                       |           |          |                 |                            |                                   |     |     |
|------------------|-------------------------|-----------------------------------|----------|----------------|--------------------|-------------|------------|-----------------------------|--------------------------|----------------------------------------|--------------------------------|-----------|--------------------------------------------------------|---------------------------------|-----------|------------------------------|----------------|-----------|--------------------------------|-------------|---------------------------|--------------------------------|---------------|-----------------------------------|---------------|---------------------|---------------------------------|------------------------------|---------------------------------|-------------------|-----------------------------------------------------------------------|-----------|----------|-----------------|----------------------------|-----------------------------------|-----|-----|
|                  |                         | Typoid and<br>paratyphoid fevers. | Measles. | Scarlet fever. | Whooping<br>cough. | Diphtheria. | Influenza. | Encephalitis<br>lethargica. | Cerebro-spinal<br>fever. | Tuberculosis of<br>respiratory system. | Other tuberculous<br>diseases. | Syphilis. | General paralysis of<br>the insane, tabes<br>dorsalis. | Cancer, malign-<br>ant disease. | Diabetes. | Cerebral<br>haemorrhage, &c. | Heart disease. | Aneurysm. | Other circulatory<br>diseases. | Bronchitis. | Pneumonia<br>(all forms). | Other respiratory<br>diseases. | Peptic ulcer. | Diarrhoea, &c.<br>(under 2 years) | Appendicitis. | Cirrhosis of liver. | Other diseases of<br>liver, &c. | Other digestive<br>diseases. | Acute and chronic<br>nephritis. | Puerperal sepsis. | Other puerperal<br>causes,<br>premature birth,<br>malformations, etc. | Senility. | Suicide. | Other violence. | Other defined<br>diseases. | Causes ill-defined<br>or unknown. |     |     |
|                  | Leigh (B) ...           | ...                               | ...      | ...            | ...                | ...         | 43         | ...                         | 2                        | 31                                     | 5                              | ...       | 1                                                      | 63                              | 7         | 34                           | 100            | 1         | 36                             | 59          | 36                        | 10                             | 4             | 5                                 | 2             | 3                   | 2                               | 13                           | 25                              | ...               | 1                                                                     | 25        | 29       | 7               | 19                         | 56                                | 5   |     |
|                  | Leyland ...             | ...                               | ...      | ...            | ...                | ...         | 4          | ...                         | ...                      | 6                                      | 1                              | ...       | 1                                                      | 13                              | ...       | 9                            | 30             | ...       | 14                             | 10          | 9                         | 3                              | 1             | ...                               | 1             | ...                 | 1                               | 5                            | 3                               | ...               | 1                                                                     | 4         | 2        | 2               | 5                          | 16                                | ... |     |
|                  | Litherland ...          | ...                               | ...      | 3              | ...                | 2           | 8          | ...                         | 1                        | 24                                     | 3                              | ...       | 2                                                      | 30                              | ...       | 8                            | 26             | 1         | 11                             | 8           | 23                        | 2                              | 2             | 2                                 | 2             | 2                   | 1                               | 1                            | 4                               | 4                 | 2                                                                     | ...       | 11       | 9               | 6                          | 11                                | 618 | 1   |
|                  | Littleborough ...       | ...                               | ...      | ...            | ...                | 3           | 17         | ...                         | ...                      | 4                                      | ...                            | 1         | 1                                                      | 24                              | 2         | 12                           | 39             | ...       | 10                             | 8           | 2                         | 2                              | 1             | ...                               | 3             | 1                   | ...                             | 6                            | 8                               | ...               | ...                                                                   | 3         | 12       | 5               | 6                          | 10                                | ... |     |
|                  | *Little Hulton ...      | ...                               | ...      | ...            | ...                | ...         | 5          | ...                         | ...                      | 4                                      | 1                              | ...       | ...                                                    | 1                               | ...       | 3                            | 4              | ...       | ...                            | ...         | ...                       | 3                              | ...           | ...                               | ...           | ...                 | ...                             | ...                          | ...                             | 1                 | ...                                                                   | 3         | 2        | ...             | 1                          | 1                                 | 1   | 1   |
|                  | Little Lever ...        | ...                               | 1        | ...            | 1                  | ...         | 2          | ...                         | ...                      | 2                                      | ...                            | ...       | ...                                                    | 6                               | 4         | 2                            | 15             | ...       | 8                              | 7           | 5                         | 2                              | ...           | ...                               | 2             | 1                   | 1                               | 3                            | 3                               | 1                 | ...                                                                   | 2         | 3        | 1               | 1                          | 4                                 | ... |     |
|                  | Longridge ...           | ...                               | ...      | 1              | ...                | 2           | 3          | ...                         | ...                      | 5                                      | ...                            | ...       | ...                                                    | 6                               | 1         | 2                            | 12             | ...       | ...                            | 3           | ...                       | 3                              | 1             | ...                               | ...           | ...                 | 1                               | 2                            | 4                               | ...               | 1                                                                     | 2         | 2        | ...             | ...                        | 5                                 | ... |     |
|                  | Lytham Saint Anne's (B) | 1                                 | ...      | ...            | ...                | 2           | 14         | ...                         | ...                      | 12                                     | 2                              | 1         | ...                                                    | 54                              | 6         | 30                           | 104            | ...       | 28                             | 10          | 17                        | 1                              | 2             | 2                                 | 2             | 3                   | 3                               | 7                            | 11                              | 16                | 1                                                                     | 2         | 7        | 28              | 5                          | 8                                 | 31  | 1   |
|                  | Middleton (B) ...       | ...                               | 1        | ...            | 3                  | ...         | 16         | 1                           | ...                      | 16                                     | 2                              | ...       | 2                                                      | 55                              | 7         | 39                           | 95             | ...       | 20                             | 30          | 21                        | 3                              | 3             | 1                                 | 1             | 1                   | 1                               | 1                            | 11                              | 23                | ...                                                                   | 2         | 14       | 4               | 4                          | 11                                | 221 | 1   |
|                  | Milnrow ...             | ...                               | ...      | ...            | ...                | 1           | 9          | ...                         | ...                      | 4                                      | ...                            | 1         | 1                                                      | 13                              | 1         | 4                            | 35             | ...       | 5                              | 9           | 6                         | 2                              | 1             | 1                                 | 1             | 1                   | 1                               | 1                            | 4                               | 7                 | ...                                                                   | ...       | 4        | 6               | 2                          | 4                                 | 10  | ... |
|                  | Morecambe & Heysham (B) | ...                               | 1        | ...            | 3                  | ...         | 23         | 2                           | ...                      | 8                                      | 2                              | ...       | ...                                                    | 39                              | 6         | 23                           | 130            | ...       | 26                             | 14          | 17                        | 3                              | 3             | 2                                 | 4             | ...                 | 2                               | 15                           | 11                              | ...               | ...                                                                   | 18        | 10       | 5               | 11                         | 30                                | 3   |     |
|                  | Mossley (B) ...         | ...                               | ...      | ...            | ...                | ...         | 4          | ...                         | ...                      | 7                                      | ...                            | ...       | ...                                                    | 20                              | 2         | 12                           | 41             | ...       | 7                              | 3           | 5                         | 1                              | ...           | ...                               | 1             | ...                 | ...                             | 5                            | 13                              | ...               | ...                                                                   | 7         | 13       | 1               | 5                          | 211                               | ... |     |
|                  | Nelson (B)...           | ...                               | 1        | 2              | 3                  | 1           | 37         | 2                           | ...                      | 17                                     | 7                              | 4         | ...                                                    | 66                              | 9         | 27                           | 140            | ...       | 23                             | 33          | 24                        | 5                              | 5             | ...                               | 4             | 4                   | 3                               | 9                            | 14                              | ...               | 4                                                                     | 17        | 15       | 7               | 16                         | 36                                | 1   |     |
|                  | Newton-in-Makerfield    | ...                               | ...      | ...            | 2                  | ...         | 22         | ...                         | ...                      | 13                                     | 5                              | ...       | 1                                                      | 24                              | 3         | 8                            | 55             | ...       | 5                              | 17          | 21                        | 5                              | 2             | 3                                 | ...           | ...                 | 2                               | 3                            | 9                               | 1                 | 1                                                                     | 15        | 7        | 2               | 9                          | 26                                | 1   |     |
|                  | †Norden ...             | ...                               | ...      | ...            | ...                | 1           | 3          | ...                         | ...                      | 1                                      | 1                              | ...       | ...                                                    | 2                               | 2         | 3                            | 9              | ...       | 7                              | 1           | 1                         | 1                              | ...           | 1                                 | ...           | ...                 | 1                               | ...                          | ...                             | 3                 | ...                                                                   | ...       | 2        | ...             | 2                          | 3                                 | 9   | 1   |
|                  | Ormskirk ...            | ...                               | ...      | ...            | ...                | ...         | 16         | 1                           | ...                      | 14                                     | ...                            | ...       | 2                                                      | 33                              | 2         | 5                            | 50             | ...       | 3                              | 17          | 20                        | 3                              | 5             | ...                               | 1             | 2                   | ...                             | 4                            | 7                               | 1                 | 1                                                                     | 8         | 14       | 1               | 7                          | 16                                | 2   |     |
|                  | Orrell ...              | ...                               | ...      | 1              | ...                | ...         | 3          | ...                         | ...                      | 4                                      | 1                              | ...       | ...                                                    | 7                               | 1         | 9                            | 14             | ...       | 1                              | 7           | 9                         | ...                            | ...           | ...                               | 1             | 1                   | ...                             | 1                            | ...                             | 2                 | ...                                                                   | ...       | 3        | 8               | ...                        | 2                                 | 7   | ... |
|                  | Oswaldtwistle ...       | 1                                 | ...      | ...            | ...                | 1           | 17         | 1                           | ...                      | 8                                      | 2                              | ...       | 1                                                      | 17                              | 1         | 8                            | 34             | ...       | 19                             | 6           | 8                         | 2                              | 1             | 1                                 | ...           | ...                 | ...                             | ...                          | 7                               | ...               | ...                                                                   | 1         | 8        | 1               | 9                          | 219                               | 1   |     |
|                  | Padiham ...             | ...                               | 1        | ...            | ...                | 4           | 9          | ...                         | ...                      | 6                                      | 3                              | 1         | 1                                                      | 21                              | ...       | 9                            | 54             | ...       | 10                             | 8           | 6                         | 1                              | ...           | 3                                 | 2             | ...                 | 3                               | 4                            | 8                               | 1                 | ...                                                                   | 4         | 6        | 1               | 5                          | 11                                | 2   |     |
|                  | Poulton-le-Fylde ...    | ...                               | ...      | ...            | ...                | ...         | ...        | ...                         | ...                      | 1                                      | ...                            | 1         | ...                                                    | 9                               | 3         | 1                            | 5              | ...       | ...                            | ...         | 1                         | ...                            | 1             | ...                               | ...           | ...                 | 2                               | ...                          | ...                             | 1                 | ...                                                                   | 1         | 1        | 1               | 1                          | 4                                 | ... |     |
|                  | Preesall ...            | ...                               | ...      | ...            | ...                | ...         | 5          | ...                         | ...                      | ...                                    | ...                            | 1         | ...                                                    | 6                               | 1         | 2                            | 9              | ...       | 1                              | 1           | 2                         | ...                            | ...           | ...                               | ...           | ...                 | ...                             | ...                          | ...                             | ...               | ...                                                                   | ...       | ...      | 1               | ...                        | ...                               | ... |     |
|                  | Prescot ...             | ...                               | 1        | ...            | ...                | ...         | 4          | ...                         | ...                      | 10                                     | 1                              | 1         | 1                                                      | 19                              | 1         | 5                            | 25             | ...       | 9                              | 7           | 8                         | ...                            | 2             | ...                               | ...           | ...                 | ...                             | ...                          | 6                               | ...               | 1                                                                     | 5         | 10       | 2               | 3                          | 12                                | ... |     |
|                  | Prestwich ...           | ...                               | ...      | ...            | ...                | 2           | 15         | ...                         | ...                      | 14                                     | 3                              | ...       | 1                                                      | 36                              | 4         | 15                           | 63             | ...       | 13                             | 13          | 7                         | 5                              | ...           | 1                                 | ...           | ...                 | 1                               | 2                            | 7                               | ...               | ...                                                                   | 7         | 7        | 2               | 11                         | 23                                | ... |     |



TABLE 3—continued

| URBAN DISTRICTS.           |     | Total<br>No. of<br>Deaths<br>from all<br>causes. | Typhoid and<br>paratyphoid fevers. | Measles. | Scarlet fever. | Whooping<br>Cough. | Diphtheria. | Influenza. | Encephalitis<br>lethargica. | Cerebro-spinal<br>fever. | Tuberculous of<br>respiratory system. | Other tuberculous<br>diseases. | Syphilis. | General paralysis of<br>the insane, tabes dor-<br>salis. | Cancer, malign-<br>ant disease. | Diabetes. | Cerebral<br>hemorrhage, &c. | Heart disease. | Aneurysm. | Other circulatory<br>diseases. | Bronchitis. | Pneumonia<br>(all forms). | Other respiratory<br>diseases. | Peptic ulcer. | Diarrhoea, &c.<br>(under 2 years). | Appendicitis. | Cirrhosis of liver. | Other diseases of<br>liver, &c. | Other digestive<br>diseases. | Acute and chronic<br>nephritis. | Puerperal sepsis. | Other puerperal<br>causes. | Congenital debility,<br>premature birth,<br>malformations, etc. | Senility. | Suicide. | Other violence. | Other defined<br>diseases. | Causes ill-defined<br>or unknown. |     |     |
|----------------------------|-----|--------------------------------------------------|------------------------------------|----------|----------------|--------------------|-------------|------------|-----------------------------|--------------------------|---------------------------------------|--------------------------------|-----------|----------------------------------------------------------|---------------------------------|-----------|-----------------------------|----------------|-----------|--------------------------------|-------------|---------------------------|--------------------------------|---------------|------------------------------------|---------------|---------------------|---------------------------------|------------------------------|---------------------------------|-------------------|----------------------------|-----------------------------------------------------------------|-----------|----------|-----------------|----------------------------|-----------------------------------|-----|-----|
| Radcliffe ...              | ... | 362                                              | ...                                | ...      | ...            | ...                | 1           | 16         | 2                           | ...                      | 17                                    | 3                              | 1         | 5                                                        | 37                              | 7         | 31                          | 98             | ...       | 12                             | 17          | 20                        | 2                              | 2             | 5                                  | 2             | 3                   | ...                             | 8                            | 9                               | ...               | 1                          | 9                                                               | 11        | 3        | 11              | 28                         | 1                                 |     |     |
| Rainford ...               | ... | 33                                               | ...                                | ...      | ...            | ...                | ...         | 3          | ...                         | ...                      | 3                                     | ...                            | ...       | ...                                                      | 6                               | ...       | ...                         | 3              | ...       | ...                            | ...         | 1                         | 4                              | 1             | ...                                | ...           | ...                 | ...                             | 2                            | ...                             | ...               | ...                        | 1                                                               | 1         | 1        | ...             | 3                          | 3                                 | ... |     |
| Ramsbottom ...             | ... | 200                                              | ...                                | ...      | 1              | ...                | ...         | 2          | 2                           | ...                      | 10                                    | 2                              | ...       | ...                                                      | 21                              | 3         | 13                          | 50             | ...       | 22                             | 11          | 3                         | 4                              | 2             | 1                                  | ...           | ...                 | ...                             | 1                            | 2                               | 5                 | ...                        | ...                                                             | 7         | 1        | 2               | 11                         | 23                                | 1   |     |
| Rawtenstall (B) ...        | ... | 389                                              | ...                                | ...      | ...            | 1                  | 3           | 24         | ...                         | ...                      | 16                                    | 7                              | ...       | 1                                                        | 48                              | 6         | 28                          | 92             | ...       | 19                             | 13          | 15                        | 4                              | 4             | ...                                | 3             | ...                 | ...                             | 5                            | 7                               | 23                | ...                        | 1                                                               | 15        | 13       | 5               | 5                          | 31                                | ... |     |
| Rishton ...                | ... | 80                                               | ...                                | ...      | ...            | 1                  | 1           | 2          | ...                         | ...                      | 3                                     | ...                            | ...       | ...                                                      | 6                               | 1         | 8                           | 22             | ...       | 1                              | 6           | 5                         | ...                            | ...           | 2                                  | ...           | 3                   | ...                             | ...                          | ...                             | ...               | 4                          | ...                                                             | ...       | 1        | 3               | ...                        | 2                                 | 8   | 1   |
| Royton ...                 | ... | 255                                              | ...                                | ...      | ...            | ...                | 1           | 9          | 1                           | ...                      | 9                                     | 1                              | ...       | 1                                                        | 24                              | 3         | 15                          | 60             | 1         | 14                             | 13          | 16                        | 2                              | 4             | ...                                | 2             | 1                   | ...                             | ...                          | 6                               | 8                 | 1                          | 2                                                               | 8         | 13       | 5               | 10                         | 24                                | 1   |     |
| Skelmersdale ...           | ... | 83                                               | ...                                | ...      | ...            | ...                | 1           | 5          | ...                         | 1                        | 4                                     | 2                              | ...       | ...                                                      | 10                              | ...       | 6                           | 15             | ...       | 6                              | 2           | 7                         | ...                            | ...           | ...                                | ...           | ...                 | ...                             | ...                          | 1                               | 2                 | ...                        | ...                                                             | 2         | 6        | ...             | 2                          | 10                                | 1   |     |
| Standish-with-Langtree ... | ... | 73                                               | 1                                  | ...      | ...            | ...                | ...         | 2          | ...                         | ...                      | ...                                   | ...                            | ...       | ...                                                      | 5                               | 2         | 4                           | 12             | ...       | 7                              | 4           | 10                        | 2                              | 2             | ...                                | ...           | 1                   | ...                             | ...                          | 1                               | 1                 | 3                          | ...                                                             | 5         | 3        | 2               | 1                          | 5                                 | ... |     |
| Stretford (B) ...          | ... | 667                                              | ...                                | ...      | ...            | ...                | 6           | 31         | 1                           | ...                      | 47                                    | 7                              | 3         | 5                                                        | 78                              | 10        | 40                          | 122            | 2         | 28                             | 28          | 44                        | 8                              | 7             | 1                                  | 6             | ...                 | ...                             | 2                            | 12                              | 23                | 1                          | 4                                                               | 26        | 47       | 5               | 25                         | 48                                | ... |     |
| Swinton and Pendlebury ... | ... | 426                                              | ...                                | 3        | 1              | 1                  | 4           | 20         | 2                           | 2                        | 16                                    | 2                              | ...       | ...                                                      | 45                              | 7         | 40                          | 80             | ...       | 17                             | 26          | 35                        | 3                              | 3             | ...                                | 2             | 1                   | ...                             | ...                          | 5                               | 8                 | 11                         | 2                                                               | 1         | 20       | 23              | 5                          | 16                                | 27  | ... |
| Thornton Cleveleys ...     | ... | 134                                              | ...                                | ...      | ...            | ...                | ...         | 4          | ...                         | ...                      | 7                                     | ...                            | 1         | 2                                                        | 16                              | 2         | 7                           | 42             | ...       | 9                              | 4           | 4                         | 2                              | 2             | 1                                  | 2             | ...                 | ...                             | 1                            | 3                               | ...               | ...                        | ...                                                             | 5         | 2        | 1               | 1                          | 16                                | ... |     |
| Tottington ...             | ... | 84                                               | ...                                | ...      | 1              | ...                | ...         | 4          | ...                         | ...                      | 2                                     | 1                              | ...       | 1                                                        | 7                               | 4         | 1                           | 23             | ...       | 5                              | 3           | 1                         | ...                            | ...           | ...                                | 1             | ...                 | ...                             | 1                            | 3                               | 3                 | 1                          | ...                                                             | 1         | 1        | 4               | 3                          | 13                                | ... |     |
| Trawden ...                | ... | 33                                               | ...                                | ...      | ...            | ...                | ...         | 2          | ...                         | ...                      | 1                                     | ...                            | ...       | ...                                                      | 3                               | ...       | 2                           | 5              | ...       | 1                              | 3           | 2                         | ...                            | ...           | ...                                | 1             | 2                   | ...                             | ...                          | 1                               | ...               | 2                          | ...                                                             | ...       | 2        | 1               | 1                          | ...                               | 4   | ... |
| Turton ...                 | ... | 177                                              | ...                                | ...      | ...            | ...                | ...         | 8          | 1                           | ...                      | 8                                     | ...                            | 1         | ...                                                      | 25                              | ...       | 6                           | 42             | ...       | 14                             | 4           | 9                         | 2                              | 1             | ...                                | 2             | 1                   | ...                             | ...                          | 1                               | 8                 | 6                          | ...                                                             | ...       | 8        | 9               | 2                          | 4                                 | 15  | ... |
| Tyldesley ...              | ... | 195                                              | ...                                | 8        | ...            | ...                | 1           | 5          | 1                           | 2                        | 11                                    | 4                              | ...       | ...                                                      | 21                              | 1         | 13                          | 27             | ...       | 19                             | 12          | 14                        | ...                            | 1             | ...                                | 2             | 1                   | ...                             | ...                          | 2                               | 4                 | 2                          | ...                                                             | 1         | 8        | 9               | 1                          | 11                                | 14  | ... |
| Ulverston ...              | ... | 116                                              | ...                                | ...      | ...            | ...                | ...         | 3          | ...                         | ...                      | 7                                     | ...                            | ...       | 1                                                        | 20                              | 1         | 10                          | 25             | ...       | 3                              | 3           | 9                         | 1                              | ...           | ...                                | ...           | ...                 | ...                             | 1                            | 2                               | 4                 | ...                        | ...                                                             | 2         | 3        | 1               | 2                          | 14                                | 1   |     |
| Upholland ...              | ... | 65                                               | ...                                | ...      | ...            | 1                  | ...         | 2          | ...                         | ...                      | ...                                   | ...                            | ...       | ...                                                      | 10                              | 2         | 5                           | 16             | ...       | ...                            | 2           | 8                         | ...                            | ...           | ...                                | ...           | ...                 | ...                             | ...                          | ...                             | ...               | 3                          | ...                                                             | ...       | 3        | 1               | 1                          | 3                                 | 5   | 3   |
| Urmston ...                | ... | 220                                              | ...                                | ...      | 1              | ...                | 3           | 4          | 1                           | ...                      | 9                                     | ...                            | ...       | ...                                                      | 35                              | 3         | 12                          | 47             | ...       | 12                             | 5           | 9                         | 4                              | 2             | 2                                  | 3             | ...                 | ...                             | 3                            | 5                               | 5                 | 1                          | ...                                                             | 8         | 12       | 2               | 10                         | 21                                | ... |     |
| Walton-le-Dale ...         | ... | 159                                              | ...                                | ...      | ...            | 1                  | ...         | 10         | ...                         | ...                      | 4                                     | 2                              | ...       | ...                                                      | 16                              | 2         | 8                           | 32             | ...       | 4                              | 14          | 10                        | 2                              | 2             | ...                                | 3             | ...                 | ...                             | ...                          | 3                               | 11                | ...                        | ...                                                             | 4         | 8        | 2               | 5                          | 16                                | ... |     |
| Wardle ...                 | ... | 64                                               | ...                                | ...      | ...            | ...                | 1           | 10         | ...                         | ...                      | 1                                     | 2                              | ...       | ...                                                      | 6                               | 1         | 4                           | 9              | ...       | 3                              | 6           | ...                       | ...                            | ...           | ...                                | 2             | ...                 | ...                             | ...                          | 1                               | 1                 | ...                        | ...                                                             | 4         | 7        | 2               | 1                          | 3                                 | ... |     |
| Waterloo-with-Seaforth ... | ... | 410                                              | ...                                | ...      | ...            | 3                  | 6           | 13         | ...                         | ...                      | 32                                    | 7                              | ...       | 3                                                        | 42                              | 5         | 23                          | 77             | 1         | 14                             | 16          | 32                        | 6                              | 4             | 3                                  | 1             | 1                   | ...                             | 1                            | 11                              | 17                | ...                        | 1                                                               | 17        | 22       | 3               | 10                         | 36                                | 3   |     |
| Westhoughton ...           | ... | 187                                              | ...                                | ...      | ...            | ...                | 1           | 17         | ...                         | ...                      | 6                                     | ...                            | 1         | 1                                                        | 15                              | 2         | 8                           | 31             | ...       | 14                             | 12          | 14                        | 2                              | 1             | ...                                | ...           | ...                 | ...                             | 1                            | 4                               | 7                 | ...                        | 2                                                               | 15        | 8        | 1               | 4                          | 19                                | 1   |     |
| Whitefield ...             | ... | 108                                              | ...                                | ...      | ...            | ...                | 1           | 5          | ...                         | 1                        | 1                                     | 1                              | ...       | ...                                                      | 13                              | 1         | 5                           | 27             | ...       | 13                             | 5           | 5                         | ...                            | ...           | ...                                | 2             | 1                   | ...                             | ...                          | 3                               | 3                 | ...                        | ...                                                             | 4         | 1        | 3               | 3                          | 10                                | ... |     |
| Whitworth ...              | ... | 133                                              | ...                                | 1        | ...            | 1                  | 5           | 5          | 1                           | ...                      | 6                                     | ...                            | ...       | ...                                                      | 13                              | ...       | 6                           | 37             | ...       | 14                             | 5           | 7                         | 2                              | ...           | ...                                | 1             | ...                 | ...                             | 3                            | 2                               | 5                 | ...                        | ...                                                             | 5         | 2        | 3               | 2                          | 5                                 | ... |     |

Includes.—(a) 1 death from Poliomyelitis.



TABLE 3—continued.

| URBAN DISTRICTS.               |     | MORTALITY FROM SUBJOINED CAUSES   |          |                |                    |             |            |                              |                          |                                        |                                |           |                                                          |                                 |           |                             |                |           |                                |             |                           |                                |               |                                   |               |                     |                                 |                              | Total<br>No. of<br>Deaths<br>from all<br>causes. |                                 |                   |                            |                                                                 |           |          |                 |                            |                                   |     |     |     |
|--------------------------------|-----|-----------------------------------|----------|----------------|--------------------|-------------|------------|------------------------------|--------------------------|----------------------------------------|--------------------------------|-----------|----------------------------------------------------------|---------------------------------|-----------|-----------------------------|----------------|-----------|--------------------------------|-------------|---------------------------|--------------------------------|---------------|-----------------------------------|---------------|---------------------|---------------------------------|------------------------------|--------------------------------------------------|---------------------------------|-------------------|----------------------------|-----------------------------------------------------------------|-----------|----------|-----------------|----------------------------|-----------------------------------|-----|-----|-----|
|                                |     | Typhoid and<br>paratyphoid fever. | Measles. | Scarlet fever. | Whooping<br>Cough. | Diphtheria. | Influenza. | Etiophallitis<br>lethargica. | Cerebro-spinal<br>fever. | Tuberculosis of<br>respiratory system. | Other tuberculous<br>diseases. | Syphilis. | General paralysis of<br>the insane, tabes dor-<br>salis. | Cancer, malign-<br>ant disease. | Diabetes. | Cerebral<br>hemorrhage, &c. | Heart disease. | Aneurysm. | Other circulatory<br>diseases. | Bronchitis. | Pneumonia<br>(all forms). | Other respiratory<br>diseases. | Peptic ulcer. | Diarrhea, &c.<br>(under 2 years). | Appendicitis. | Cirrhosis of liver. | Other diseases of<br>liver, &c. | Other digestive<br>diseases. |                                                  | Acute and chronic<br>nephritis. | Puerperal sepsis. | Other puerperal<br>causes. | Congenital debility,<br>premature birth,<br>malformations, etc. | Senility. | Suicide. | Other violence. | Other defined<br>diseases. | Causes ill-defined<br>or unknown. |     |     |     |
| Widnes (B)                     | ... | ...                               | 9        | 1              | 3                  | 3           | 30         | 2                            | ...                      | 39                                     | 9                              | 1         | ...                                                      | 43                              | 2         | 22                          | 100            | 1         | 6                              | 27          | 40                        | 2                              | 2             | 2                                 | 4             | ...                 | ...                             | 3                            | 15                                               | 6                               | ...               | ...                        | 28                                                              | 16        | 3        | 21              | 288                        | 7                                 |     |     |     |
| Withnell                       | ... | ...                               | ...      | ...            | ...                | 4           | ...        | ...                          | ...                      | ...                                    | 1                              | ...       | ...                                                      | 2                               | ...       | 3                           | 12             | ...       | ...                            | 6           | 1                         | ...                            | 1             | ...                               | ...           | ...                 | ...                             | ...                          | 1                                                | ...                             | ...               | ...                        | ...                                                             | ...       | ...      | ...             | ...                        | 3                                 | ... | 5   |     |
| Worsley                        | ... | ...                               | ...      | 1              | ...                | ...         | 19         | 2                            | 1                        | 4                                      | 5                              | 1         | 1                                                        | 37                              | 1         | 21                          | 53             | ...       | 15                             | 9           | 11                        | 4                              | 2             | ...                               | 3             | 2                   | ...                             | 3                            | 9                                                | 7                               | ...               | ...                        | 10                                                              | 16        | 3        | 12              | 22                         | ...                               | ... | ... |     |
| Total Urban Districts          | ... | 7                                 | 57       | 29             | 78                 | 96          | 1062       | 47                           | 25                       | 909                                    | 203                            | 41        | 82                                                       | 2344                            | 257       | 1212                        | 4493           | 23        | 1036                           | 1032        | 1227                      | 198                            | 145           | 99                                | 132           | 61                  | 139                             | 452                          | 698                                              | 35                              | 76                | 785                        | 925                                                             | 224       | 686      | 1635            | 74                         | ...                               | ... |     |     |
| RURAL DISTRICTS.               |     |                                   |          |                |                    |             |            |                              |                          |                                        |                                |           |                                                          |                                 |           |                             |                |           |                                |             |                           |                                |               |                                   |               |                     |                                 |                              |                                                  |                                 |                   |                            |                                                                 |           |          |                 |                            |                                   |     |     |     |
| *Barton-upon-Irwell            | ... | ...                               | ...      | ...            | ...                | ...         | 8          | ...                          | ...                      | 2                                      | ...                            | 1         | ...                                                      | 3                               | ...       | 5                           | 14             | ...       | 4                              | 3           | 3                         | 2                              | 1             | ...                               | ...           | ...                 | ...                             | 2                            | ...                                              | ...                             | ...               | 3                          | 2                                                               | ...       | 3        | 3               | ...                        | ...                               | ... |     |     |
| Blackburn                      | ... | ...                               | 1        | ...            | ...                | ...         | 3          | ...                          | 6                        | ...                                    | 1                              | ...       | ...                                                      | 25                              | 7         | 3                           | 34             | ...       | 5                              | 4           | 4                         | 4                              | ...           | ...                               | 1             | 1                   | ...                             | ...                          | 4                                                | 3                               | ...               | ...                        | 2                                                               | 4         | 1        | 6               | 14                         | ...                               | ... | ... |     |
| Burnley                        | ... | 2                                 | ...      | ...            | ...                | ...         | 7          | ...                          | 9                        | ...                                    | ...                            | ...       | ...                                                      | 20                              | 5         | 10                          | 64             | ...       | 22                             | 11          | 5                         | ...                            | 1             | 1                                 | 6             | ...                 | 2                               | 9                            | 3                                                | ...                             | 1                 | 7                          | 8                                                               | ...       | 7        | 28              | ...                        | ...                               | ... |     |     |
| †Bury                          | ... | ...                               | ...      | ...            | ...                | ...         | 7          | ...                          | 1                        | ...                                    | ...                            | ...       | ...                                                      | 3                               | 1         | 4                           | 21             | ...       | 3                              | 8           | 3                         | ...                            | ...           | ...                               | 1             | ...                 | ...                             | 2                            | 2                                                | ...                             | ...               | 1                          | 4                                                               | 2         | 2        | 3               | 4                          | ...                               | ... | ... |     |
| Chorley                        | ... | ...                               | ...      | 2              | ...                | 1           | 25         | 2                            | ...                      | 3                                      | 3                              | ...       | ...                                                      | 40                              | 8         | 19                          | 65             | ...       | 23                             | 12          | 11                        | 3                              | 1             | 1                                 | 2             | 1                   | 2                               | 7                            | 9                                                | 1                               | 2                 | 14                         | 6                                                               | 1         | 9        | 18              | ...                        | ...                               | ... |     |     |
| Clitheroe                      | ... | ...                               | ...      | ...            | ...                | 1           | 4          | ...                          | ...                      | 3                                      | ...                            | ...       | ...                                                      | 11                              | ...       | 6                           | 14             | ...       | 5                              | 4           | 5                         | ...                            | 1             | ...                               | ...           | ...                 | ...                             | ...                          | 1                                                | 3                               | 1                 | ...                        | 1                                                               | 2         | 3        | 5               | 10                         | ...                               | ... | ... |     |
| Fylde                          | ... | ...                               | ...      | 1              | ...                | ...         | 7          | ...                          | 8                        | ...                                    | 4                              | 1         | 1                                                        | 19                              | 3         | 9                           | 65             | ...       | 18                             | 7           | 10                        | 1                              | 2             | 1                                 | 2             | ...                 | ...                             | 2                            | 2                                                | ...                             | ...               | 1                          | 10                                                              | 12        | 4        | 10              | 21                         | ...                               | ... | ... |     |
| Garstang                       | ... | ...                               | ...      | ...            | ...                | ...         | 8          | ...                          | 2                        | ...                                    | 3                              | ...       | ...                                                      | 18                              | 3         | 4                           | 38             | ...       | 8                              | 9           | 4                         | 1                              | 2             | ...                               | ...           | ...                 | 2                               | 2                            | 9                                                | 1                               | 1                 | 5                          | 1                                                               | 2         | 6        | 13              | ...                        | ...                               | ... |     |     |
| Lancaster                      | ... | ...                               | ...      | 1              | ...                | 2           | 7          | 2                            | ...                      | 4                                      | ...                            | 1         | 1                                                        | 16                              | 1         | 12                          | 32             | ...       | 8                              | 4           | 5                         | 2                              | 2             | 1                                 | 1             | ...                 | 2                               | 2                            | 4                                                | ...                             | ...               | 1                          | 5                                                               | 14        | ...      | 1               | 27                         | 1                                 | ... | ... |     |
| ‡Leigh                         | ... | 1                                 | ...      | ...            | ...                | ...         | 9          | 1                            | 1                        | 1                                      | 1                              | ...       | ...                                                      | 4                               | 1         | 6                           | 21             | 1         | 3                              | 3           | 10                        | ...                            | 1             | ...                               | 1             | 1                   | ...                             | ...                          | 3                                                | 1                               | ...               | ...                        | 3                                                               | 1         | 1        | 3               | 65                         | 1                                 | ... | ... |     |
| Limehurst                      | ... | ...                               | ...      | ...            | ...                | 1           | 5          | ...                          | 1                        | 4                                      | 1                              | ...       | 1                                                        | 14                              | 1         | 5                           | 29             | ...       | 2                              | 3           | 8                         | ...                            | ...           | 1                                 | ...           | ...                 | ...                             | ...                          | 2                                                | 2                               | ...               | ...                        | 2                                                               | 5         | 2        | 4               | 10                         | ...                               | ... | ... |     |
| Lunesdale                      | ... | ...                               | ...      | 1              | ...                | 2           | 5          | ...                          | ...                      | 2                                      | ...                            | ...       | 1                                                        | 8                               | 2         | 11                          | 12             | ...       | ...                            | 2           | 3                         | 1                              | 1             | ...                               | ...           | ...                 | ...                             | ...                          | ...                                              | ...                             | ...               | 1                          | 6                                                               | 13        | 1        | 2               | 7                          | 2                                 | ... | ... |     |
| Preston                        | ... | ...                               | 1        | 1              | 1                  | 1           | 15         | 1                            | ...                      | 17                                     | 5                              | ...       | 3                                                        | 50                              | 5         | 13                          | 101            | ...       | 18                             | 16          | 20                        | 3                              | 3             | 1                                 | 4             | ...                 | 2                               | 8                            | 7                                                | 1                               | 1                 | 17                         | 12                                                              | 3         | 14       | 22              | ...                        | ...                               | ... | ... |     |
| Ulverston                      | ... | 1                                 | ...      | ...            | ...                | 2           | 7          | 1                            | ...                      | 6                                      | ...                            | ...       | 1                                                        | 28                              | 4         | 26                          | 66             | ...       | 14                             | 10          | 6                         | 1                              | 1             | 1                                 | 3             | 1                   | ...                             | 1                            | 6                                                | 5                               | ...               | ...                        | 8                                                               | 7         | 2        | 7               | 14                         | ...                               | ... | ... |     |
| Warrington                     | ... | ...                               | ...      | ...            | ...                | ...         | 10         | ...                          | ...                      | 8                                      | 2                              | ...       | 1                                                        | 17                              | 4         | 9                           | 31             | 1         | 4                              | 10          | 10                        | 4                              | 1             | ...                               | 2             | ...                 | ...                             | ...                          | 4                                                | 3                               | ...               | ...                        | 3                                                               | 1         | 1        | 11              | 218                        | 3                                 | ... | ... | ... |
| West Lancashire                | ... | ...                               | ...      | 1              | ...                | 2           | 25         | 1                            | ...                      | 10                                     | 3                              | ...       | ...                                                      | 31                              | 3         | 21                          | 71             | ...       | 9                              | 6           | 15                        | 4                              | 2             | 1                                 | 1             | ...                 | 1                               | 6                            | 12                                               | ...                             | 1                 | 20                         | 22                                                              | 3         | 14       | 26              | 2                          | ...                               | ... | ... |     |
| Whiston                        | ... | ...                               | ...      | 4              | ...                | ...         | 10         | ...                          | ...                      | 11                                     | 5                              | 1         | ...                                                      | 28                              | 3         | 17                          | 45             | ...       | 10                             | 12          | 12                        | 3                              | 2             | ...                               | 3             | ...                 | 2                               | 5                            | 4                                                | ...                             | 1                 | 8                          | 18                                                              | 2         | 8        | 219             | ...                        | ...                               | ... | ... |     |
| Wigan                          | ... | ...                               | ...      | 1              | ...                | ...         | 3          | 1                            | ...                      | 4                                      | 1                              | ...       | ...                                                      | 10                              | 2         | 4                           | 16             | 1         | 6                              | 3           | 6                         | 2                              | 2             | ...                               | ...           | ...                 | ...                             | ...                          | ...                                              | 2                               | ...               | ...                        | 3                                                               | 6         | ...      | 5               | 5                          | ...                               | ... | ... |     |
| Total Rural Districts          | ... | 4                                 | 2        | 2              | 11                 | 13          | 165        | 9                            | 2                        | 101                                    | 29                             | 4         | 9                                                        | 345                             | 53        | 184                         | 739            | 3         | 162                            | 127         | 140                       | 31                             | 23            | 9                                 | 27            | 3                   | 15                              | 68                           | 77                                               | 4                               | 11                | 121                        | 136                                                             | 28        | 118      | 244             | 9                          | ...                               | ... | ... |     |
| Total Urban Districts          | ... | 7                                 | 57       | 29             | 78                 | 96          | 1062       | 47                           | 25                       | 909                                    | 203                            | 41        | 82                                                       | 2344                            | 257       | 1212                        | 4493           | 23        | 1036                           | 1032        | 1227                      | 198                            | 145           | 99                                | 132           | 61                  | 139                             | 452                          | 698                                              | 35                              | 76                | 785                        | 925                                                             | 224       | 686      | 1635            | 74                         | ...                               | ... | ... |     |
| Total Administrative Districts |     | 11                                | 64       | 58             | 191                | 209         | 271        | 56                           | 50                       | 1920                                   | 406                            | 82        | 164                                                      | 582                             | 81        | 3054                        | 8922           | 46        | 2102                           | 2139        | 2627                      | 419                            | 368           | 108                               | 399           | 122                 | 298                             | 950                          | 1475                                             | 1775                            | 1581              | 1966                       | 2190                                                            | 2924      | 2822     | 1303            | 1357                       | 713                               | ... | ... | ... |

PRINCIPAL CAUSES OF DEATH.—The relative importance from the point of view of mortality of various well-defined diseases is shown in the following statement :—

|                                                                     | No. of deaths<br>in 1933. | Percentage to<br>total deaths<br>in 1933. | Percentage to<br>total deaths<br>in 1932. |
|---------------------------------------------------------------------|---------------------------|-------------------------------------------|-------------------------------------------|
| Heart disease ... ..                                                | 5,232                     | 22·0                                      | 21·7                                      |
| Cancer, malignant disease ... ..                                    | 2,689                     | 11·3                                      | 12·1                                      |
| Cerebral hæmorrhage, &c. ... ..                                     | 1,396                     | 5·8                                       | 6·3                                       |
| Pneumonia (all forms) ... ..                                        | 1,367                     | 5·7                                       | 5·8                                       |
| Tuberculosis (all forms) ... ..                                     | 1,242                     | 5·2                                       | 5·4                                       |
| Influenza ... ..                                                    | 1,227                     | 5·1                                       | 2·3                                       |
| Bronchitis ... ..                                                   | 1,159                     | 4·8                                       | 4·4                                       |
| Violence (including suicide) ... ..                                 | 1,056                     | 4·4                                       | 4·7                                       |
| Senility ... ..                                                     | 1,061                     | 4·4                                       | 4·3                                       |
| Congenital debility, premature birth,<br>malformation, etc., ... .. | 906                       | 3·8                                       | 4·2                                       |
| Acute and chronic nephritis ... ..                                  | 775                       | 3·2                                       | 3·7                                       |
| *Certain infectious diseases ... ..                                 | 407                       | 1·7                                       | 2·2                                       |

\* Including smallpox, measles, scarlet fever, whooping cough, diphtheria, enteric fever, and diarrhœa (under 2 years).

The Registrar-General, in supplying the County and District statistics given in this report, points out that the deaths are classified under the headings given in the Abridged List of Causes in the Manual of the International list of causes of death, 1931, and that the classification of some deaths is modified in the light of fuller information obtained from the certifying practitioner in response to special inquiries ; this possibly will account for some slight discrepancy between the returns of the Registrar-General and those compiled locally.

The figures set out in the tabular statement above correspond fairly closely with those of the previous year, except in the case of influenza which contributed 712 more fatalities, and heart disease with an increase of 409 deaths.

The table below compares the mortality rates of the six principal causes of death during the last five years :—

| Death-rates per 1,000 of population. |       |       |       |       |       |  |  |  |  |  |  |
|--------------------------------------|-------|-------|-------|-------|-------|--|--|--|--|--|--|
|                                      | 1929  | 1930  | 1931  | 1932  | 1933  |  |  |  |  |  |  |
| Heart disease ... ..                 | 2·49  | 2·34  | 2·67  | 2·67  | 2·89  |  |  |  |  |  |  |
| Cancer ... ..                        | 1·41  | 1·41  | 1·49  | 1·49  | 1·48  |  |  |  |  |  |  |
| Cerebral hæmorrhage ... ..           | 0·74  | 0·75  | 0·74  | 0·78  | 0·77  |  |  |  |  |  |  |
| Pneumonia (all forms) ... ..         | 1·19  | 0·71  | 0·85  | 0·72  | 0·75  |  |  |  |  |  |  |
| Bronchitis ... ..                    | 1·08  | 0·61  | 0·75  | 0·55  | 0·64  |  |  |  |  |  |  |
| Violence (including suicide) ... ..  | 0·54  | 0·57  | 0·56  | 0·58  | 0·58  |  |  |  |  |  |  |
| All causes ... ..                    | 14·00 | 11·87 | 12·86 | 12·29 | 13·09 |  |  |  |  |  |  |

An examination of the age-groups of the principal causes of death reveals that of the 5,232 deaths ascribed to heart disease, 4,339 or 82·9 per cent. were among persons over 55 years of age ; of the 2,689 cancer deaths, 2,055 or 76·4 per cent. ; bronchitis, of 1,159 deaths, 897 or 77·3 per cent. ; whilst of 1,010 fatalities ascribed to pulmonary tuberculosis, 836 or 82·7 per cent. were of persons between the ages of 15 and 55 years.

In the following paragraphs further reference is made to the chief causes of death, and the death-rates given are calculated per 1,000 of the estimated population. As stated in the note on page 14, these rates are “ crude ” rates, and in considering these statistics the rapid ageing of the population as a result in the fall of the birth and death rates must be taken into account. The crude death-rates of diseases mainly affecting elderly people, such as heart disease, cancer, and cerebral hæmorrhage, overstate the real mortality averages.



HEART DISEASE.—Deaths classified under this heading in 1933 numbered 5,232, or 22·0 per cent. of the total deaths in the Administrative County from all causes, and equivalent to a death-rate of 2·89 per 1,000 of the estimated population. In 1932 there were 4,823 deaths, and 4,824 in 1931. The increase in the number of deaths certified as due to heart disease has during recent years attracted a good deal of attention. In some quarters it is asserted there is in fact a real increase in the incidence of heart disease, whilst others contend that the increase is largely fictitious and that the rise is mainly due to the gradual evolution of more accurate methods of death certification in accordance with the increasing progress of medical knowledge. The Registrar-General in his statistical review of England and Wales points out that “the recent increase of crude mortality from heart diseases is due, among other causes, to the increasing age of the population, and to rapid increase of the record of myocardial degeneration in certification of the deaths of old people.” He gives a table to show how the rates for 1931 have been affected by these influences, and what, but for them, would have been the course of recent mortality from diseases of the heart. He says, “the crude death-rate from heart disease has increased since 1921 by 79 per cent., but the standardized rate has increased by 53 per cent. for males and 44 per cent. for females. When further allowance is made for the disturbing influences mentioned above, the increase is seen to have been only 4 per cent. for males and there has been a decrease of 2 per cent. for females.”

The tabular statement below shows the number of deaths in the County area during the ten years 1924–1933 from heart disease at various age periods. The rise in the number of fatalities at the higher age periods will be noted :—

| Year.    | Age periods—Years. |         |      |       |       |       |       |       |       |                 |
|----------|--------------------|---------|------|-------|-------|-------|-------|-------|-------|-----------------|
|          | At all ages.       | Under 5 | 5–15 | 15–25 | 25–35 | 35–45 | 45–55 | 55–65 | 65–75 | 75 and upwards. |
| 1924 ... | 2,776              | 1       | 51   | 57    | 321   |       | 936   |       | 858   | 552             |
| 1925 ... | 3,113              | 5       | 39   | 74    | 242   |       | 1,072 |       | 1,050 | 631             |
| 1926 ... | 2,995              | 11      | 30   | 65    | 259   |       | 972   |       | 1,006 | 652             |
| 1927 ... | 3,441              | 5       | 33   | 62    | 284   |       | 1,120 |       | 1,143 | 794             |
| 1928 ... | 3,506              | 7       | 46   | 76    | 288   |       | 1,158 |       | 1,156 | 775             |
| 1929 ... | 4,523              | 3       | 29   | 82    | 321   |       | 1,389 |       | 1,556 | 1,143           |
| 1930 ... | 4,230              | 2       | 42   | 61    | 283   |       | 1,283 |       | 1,510 | 1,049           |
| 1931 ... | 4,824              | 4       | 35   | 59    | 97    | 197   | 453   | 971   | 1,656 | 1,352           |
|          |                    |         |      |       | 294   |       | 1,424 |       |       |                 |
| 1932 ... | 4,823              | 4       | 26   | 69    | 114   | 173   | 436   | 1,008 | 1,660 | 1,333           |
|          |                    |         |      |       | 287   |       | 1,444 |       |       |                 |
| 1933 ... | 5,232              | 4       | 37   | 75    | 100   | 186   | 491   | 1,032 | 1,782 | 1,525           |
|          |                    |         |      |       | 286   |       | 1,523 |       |       |                 |

District death-rates from heart disease.—The following districts supplied the highest rates in 1933 :—Barrowford 5·02 per 1,000 of the population, Morecambe and Heysham (B) 4·99, Brierfield 4·83, Padiham 4·69, Fulwood and Whitworth each 4·50, Lees 4·34, Preesall 4·27, Croston 4·25, Lytham Saint Anne’s (B) 4·17, Milnrow and Withnell each 4·13, Thornton Cleveleys 4·03, and Ulverston (R) 4·01.

Extending over a period of four years, 1930–1933, the following localities had the highest averages : Morecambe and Heysham (B) 4·51, Fulwood 4·10, Barrowford 3·98, Burnley (R) 3·90, Lees and Ulverston each 3·89, Padiham 3·79, Turton 3·69, Lytham Saint Anne’s (B) 3·62, Haslingden (B), Heywood (B) and Ulverston (R) each 3·59, and Milnrow 3·51.

CANCER.—The number of deaths ascribed to cancer during the year 1933 was 2,689, one death more than in 1932, and 16 fewer than in 1931. The death-rate corresponds to 1·48 per 1,000 of the estimated population, as compared with 1·49 in the years 1932 and 1931. The County cancer death rate in 1933 is 0·04 below the rate for the whole of England and Wales.



The table below gives the number of deaths assigned to cancer and the County death-rates since 1900, and, for purposes of comparison, the rates for England and Wales.

| Death-rate per 1,000. |                   |                        |                    | Death-rate per 1,000. |                   |                        |                    |
|-----------------------|-------------------|------------------------|--------------------|-----------------------|-------------------|------------------------|--------------------|
| Year.                 | Number of Deaths. | Administrative County. | England and Wales. | Year.                 | Number of Deaths. | Administrative County. | England and Wales. |
| 1900                  | ... 1072          | ... 0·54               | 0·90               | 1917                  | ... 1713          | ... 1·09               | 1·19               |
| 1901                  | ... 1149          | ... 0·62               |                    | 1918                  | ... 1727          | ... 1·12               | 1·19               |
| 1902                  | ... 1113          | ... 0·60               |                    | 1919                  | ... 1793          | ... 1·07               | 1·18               |
| 1903                  | ... 1223          | ... 0·65               |                    | 1920                  | ... 1880          | ... 1·08               | 1·16               |
| 1904                  | ... 1229          | ... 0·65               |                    | 1921                  | ... 1981          | ... 1·12               | 1·21               |
| 1905                  | ... 1164          | ... 0·65               |                    | 1922                  | ... 2063          | ... 1·16               | 1·22               |
| 1906                  | ... 1214          | ... 0·69               |                    | 1923                  | ... 2076          | ... 1·17               | 1·26               |
| 1907                  | ... 1254          | ... 0·70               |                    | 1924                  | ... 2182          | ... 1·22               | 1·29               |
| 1908                  | ... 1283          | ... 0·71               |                    | 1925                  | ... 2273          | ... 1·27               | 1·33               |
| 1909                  | ... 1374          | ... 0·75               |                    | 1926                  | ... 2312          | ... 1·29               | 1·36               |
| 1910                  | ... 1333          | ... 0·74               | 0·99               | 1927                  | ... 2411          | ... 1·33               | 1·37               |
| 1911                  | ... 1493          | ... 0·86               |                    | 1928                  | ... 2514          | ... 1·38               | 1·42               |
| 1912                  | ... 1466          | ... 0·83               |                    | 1929                  | ... 2560          | ... 1·41               | 1·43               |
| 1913                  | ... 1618          | ... 0·93               |                    | 1930                  | ... 2564          | ... 1·41               | 1·45               |
| 1914                  | ... 1668          | ... 0·95               |                    | 1931                  | ... 2705          | ... 1·49               | 1·48               |
| 1915                  | ... 1577          | ... 0·94               |                    | 1932                  | ... 2688          | ... 1·49               | 1·51               |
| 1916                  | ... 1728          | ... 1·06               |                    | 1933                  | ... 2689          | ... 1·48               | 1·52               |

In perusing these figures it must be borne in mind that they are crude rates calculated per 1,000 of the population, and not standardized or corrected for the age and sex constitution of the population of the County. The Registrar-General in his Decennial Supplement for England and Wales, issued in 1933, after giving the standardized mortality rates covering a period of fifty years, states that in the main the increase has been due to improvement of diagnosis. In his latest annual statistics (1931) he states, the crude death-rate at all ages for males is 88 per cent. and the female rate 48 per cent. higher than the respective rates in 1901–10, but if standardized rates are compared these excesses are reduced to 32 and 3 per cent. respectively. These great differences in the rate of increase as shown by comparing crude and standardized rates emphasise the desirability of restricting comparison to the latter rates which take into account the rapidly increasing proportion of elderly persons in the population and so correct the exaggerated impression conveyed when crude rates are compared.

The incidence of cancer in the County amongst males and females, as indicated by the mortality returns, is shown below :—

Uncorrected rates per 1,000 of the population.

| Year. | Both sexes. |      | Males. |      | Females. |      |
|-------|-------------|------|--------|------|----------|------|
| 1931  | ...         | 1·49 | ...    | 1·44 | ...      | 1·56 |
| 1932  | ...         | 1·49 | ...    | 1·45 | ...      | 1·52 |
| 1933  | ...         | 1·48 | ...    | 1·45 | ...      | 1·51 |

The following table groups the number of cancer deaths in the County in certain age-periods, for males and females :—

| Year. |     |     | Total Cancer Deaths. | Sex. | Years.    |        |        |        |        |        |                 |
|-------|-----|-----|----------------------|------|-----------|--------|--------|--------|--------|--------|-----------------|
|       |     |     |                      |      | Under 25. | 25—35. | 35—45. | 45—55. | 55—65. | 65—75. | 75 and upwards. |
| 1924  | ... | ... | 2,182                | M.   | 15        | 53     |        | 543    |        | 331    | 80              |
|       |     |     |                      | F.   | 6         | 125    |        | 591    |        | 301    | 137             |
| 1925  | ... | ... | 2,273                | M.   | 11        | 75     |        | 528    |        | 306    | 121             |
|       |     |     |                      | F.   | 11        | 142    |        | 585    |        | 336    | 158             |
| 1926  | ... | ... | 2312                 | M.   | 10        | 58     |        | 561    |        | 337    | 123             |
|       |     |     |                      | F.   | 11        | 120    |        | 609    |        | 339    | 144             |
| 1927  | ... | ... | 2,411                | M.   | 12        | 66     |        | 569    |        | 372    | 99              |
|       |     |     |                      | F.   | 9         | 113    |        | 634    |        | 358    | 179             |
| 1928  | ... | ... | 2,514                | M.   | 11        | 53     |        | 585    |        | 379    | 120             |
|       |     |     |                      | F.   | 9         | 143    |        | 615    |        | 402    | 197             |
| 1929  | ... | ... | 2,560                | M.   | 13        | 52     |        | 536    |        | 370    | 134             |
|       |     |     |                      | F.   | 11        | 133    |        | 677    |        | 443    | 191             |
| 1930  | ... | ... | 2,564                | M.   | 10        | 69     |        | 545    |        | 407    | 149             |
|       |     |     |                      | F.   | 4         | 143    |        | 645    |        | 378    | 214             |
| 1931  | ... | ... | 2,705                | M.   | 9         | 11     | 40     | 189    | 397    | 438    | 146             |
|       |     |     |                      | F.   | 1         | 29     | 111    | 256    | 416    | 441    | 221             |
| 1932  | ... | ... | 2,688                | M.   | 10        | 15     | 43     | 144    | 424    | 444    | 166             |
|       |     |     |                      | F.   | 9         | 18     | 113    | 281    | 394    | 394    | 233             |
| 1933  | ... | ... | 2,689                | M.   | 5         | 12     | 40     | 182    | 383    | 465    | 164             |
|       |     |     |                      | F.   | 12        | 20     | 109    | 254    | 405    | 439    | 199             |

County cancer mortality shown per 1,000 of the population of each sex living at various age-periods for the years 1924-1933\*:-

| Per 1,000 living at specified age periods— |      |           |        |        |        |        |        |                 |             |
|--------------------------------------------|------|-----------|--------|--------|--------|--------|--------|-----------------|-------------|
| Year.                                      | Sex. | Under 25. | 25—35. | 35—45. | 45—55. | 55—65. | 65—75. | 75 and upwards. | † All Ages. |
| 1924                                       | M.   | 0·03      | 0·21   |        | 3·23   |        | 10·64  | 9·70            | 1·22        |
|                                            | F.   | 0·01      | 0·43   |        | 3·20   |        | 7·59   | 10·17           |             |
| 1925                                       | M.   | 0·02      | 0·30   |        | 3·14   |        | 9·84   | 14·67           | 1·27        |
|                                            | F.   | 0·02      | 0·48   |        | 3·16   |        | 8·47   | 11·73           |             |
| 1926                                       | M.   | 0·02      | 0·23   |        | 3·34   |        | 10·83  | 14·91           | 1·29        |
|                                            | F.   | 0·02      | 0·41   |        | 3·29   |        | 8·55   | 10·69           |             |
| 1927                                       | M.   | 0·03      | 0·26   |        | 3·39   |        | 11·96  | 12·00           | 1·33        |
|                                            | F.   | 0·02      | 0·38   |        | 3·43   |        | 9·03   | 13·29           |             |
| 1928                                       | M.   | 0·02      | 0·21   |        | 3·48   |        | 12·18  | 14·55           | 1·38        |
|                                            | F.   | 0·02      | 0·49   |        | 3·33   |        | 10·14  | 14·63           |             |
| 1929                                       | M.   | 0·03      | 0·21   |        | 3·19   |        | 11·89  | 16·24           | 1·41        |
|                                            | F.   | 0·02      | 0·45   |        | 3·66   |        | 11·17  | 14·18           |             |
| 1930                                       | M.   | 0·02      | 0·27   |        | 3·24   |        | 13·08  | 18·06           | 1·41        |
|                                            | F.   | 0·01      | 0·49   |        | 3·49   |        | 9·53   | 15·89           |             |
| 1931                                       | M.   | 0·02      | 0·7    | 0·33   | 1·71   | 4·66   | 10·38  | 13·50           | 1·49        |
|                                            | F.   | 0·00      | 0·18   | 0·77   | 1·99   | 4·36   | 8·37   | 12·65           |             |
| 1932                                       | M.   | 0·02      | 0·10   | 0·36   | 1·30   | 4·98   | 10·52  | 15·12           | 1·49        |
|                                            | F.   | 0·02      | 0·11   | 0·79   | 2·18   | 4·12   | 7·48   | 13·34           |             |
| 1933                                       | M.   | 0·01      | 0·08   | 0·33   | 1·64   | 4·50   | 11·02  | 14·94           | 1·48        |
|                                            | F.   | 0·03      | 0·12   | 0·76   | 1·97   | 4·24   | 8·33   | 11·39           |             |

\* The mortality averages shown in the above table for 1931-1933 are based on the age and sex distribution of the population as at the Census 1931; the earlier rates are based on the 1921 Census distribution.  
† Calculated on each year's estimated population.

The England and Wales mortality averages, showing the rise in the cancer death-rate of the whole country during the last 63 years, are set out below :-

| Years.        | Cancer death-rate (England and Wales)<br>per 1,000 persons living. |
|---------------|--------------------------------------------------------------------|
| 1871-1880 ... | 0·47                                                               |
| 1881-1890 ... | 0·59                                                               |
| 1891-1900 ... | 0·75                                                               |
| 1901-1910 ... | 0·90                                                               |
| 1911-1920 ... | 1·11                                                               |
| 1921-1925 ... | 1·26                                                               |
| 1926 ...      | 1·36                                                               |
| 1927 ...      | 1·37                                                               |
| 1928 ...      | 1·42                                                               |
| 1929 ...      | 1·43                                                               |
| 1930 ...      | 1·45                                                               |
| 1931 ...      | 1·48                                                               |
| 1932 ...      | 1·51                                                               |
| 1933 ...      | 1·52                                                               |

Statistics are not available as regards the County cancer deaths showing the anatomical distribution, but the table below, which has been prepared from the figures published annually by the Registrar-General, shows the preponderance with which certain sites are affected in both sexes.

NUMBER OF DEATHS FROM CANCER AND THE DISTRIBUTION OF THE RECORDED FATAL CASES IN ENGLAND AND WALES, 1924-1933.

| Site affected.                      |    | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. | 1930. | 1931. | 1932. | 1933. |
|-------------------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Buccal cavity and pharynx...        | M. | 2814  | 2953  | 2894  | 3043  | 3109  | 2928  | 2913  | 2951  | 3040  | 2812  |
|                                     | F. | 522   | 515   | 515   | 512   | 508   | 529   | 519   | 514   | 536   | 537   |
| Digestive organs and peritoneum ... | M. | 14289 | 14838 | 15264 | 15534 | 15887 | 16396 | 16710 | 17043 | 17703 | 17704 |
|                                     | F. | 13109 | 13473 | 14311 | 14059 | 14743 | 14955 | 15230 | 15368 | 15493 | 15958 |
| Respiratory organs ...              | M. | 1493  | 1642  | 1735  | 1794  | 1984  | 1991  | 2258  | 2532  | 2688  | 2971  |
|                                     | F. | 576   | 651   | 659   | 665   | 708   | 760   | 864   | 908   | 920   | 953   |
| Uterus ...                          | F. | 4385  | 4467  | 4409  | 4428  | 4525  | 4455  | 4354  | 4341  | 4342  | 4313  |
| Other Female genital organs         | F. | 1241  | 1233  | 1382  | 1444  | 1483  | 1567  | 1645  | 1667  | 1735  | 1868  |
| Breast ...                          | M. | 38    | 39    | 43    | 41    | 51    | 46    | 60    | 61    | 49    | 55    |
|                                     | F. | 5153  | 5372  | 5296  | 5678  | 5878  | 5944  | 6052  | 6381  | 6386  | 6551  |
| Male genito-urinary organs...       | M. | 2295  | 2437  | 2474  | 2586  | 2822  | 2885  | 2947  | 3187  | 3259  | 3277  |
| Skin ...                            | M. | 585   | 572   | 585   | 589   | 652   | 664   | 627   | 683   | 630   | 618   |
|                                     | F. | 460   | 432   | 427   | 475   | 502   | 494   | 447   | 480   | 527   | 500   |
| Other or unspecified organs         | M. | 1585  | 1521  | 1442  | 1461  | 1508  | 1374  | 1401  | 1320  | 1460  | 1400  |
|                                     | F. | 1844  | 1789  | 1784  | 1769  | 1893  | 1908  | 1856  | 1910  | 1948  | 2055  |
| Total Cancer deaths                 | M. | 23099 | 24002 | 24437 | 25048 | 26013 | 26284 | 26916 | 27777 | 28829 | 28837 |
|                                     | F. | 27290 | 27937 | 28783 | 29030 | 30240 | 30612 | 30967 | 31569 | 31887 | 32735 |

Extracted from the Registrar-General's Statistical Review.



District death-rates from Cancer.—The following districts had the highest cancer death-rates in 1933 :—Preesall 2·85, Poulton-le-Fylde 2·77, Croston 2·66, Clayton-le-Moors 2·35, Church 2·32, Blackburn (R) 2·17, Lytham Saint Anne's (B) 2·16, Turton 2·15, Grange-over-Sands, Kearsley, and Ulverston each 2·14, and Accrington (B) and Barrowford each 2·12.

Extending over a period of five years, 1929–1933, the following districts had the highest averages :—Preesall 2·61, Poulton-le-Fylde 2·53, Grange-over-Sands 2·42, Church 2·06, Ulverston 2·00, Ulverston (R) 1·98, Denton 1·97, Lytham Saint Anne's (B) 1·94, Mossley (B) 1·93, Whitworth 1·92, and Darwen (B) and Lees each 1·87.

Amongst the activities of local authorities, as shown by the Medical Officers' reports, are the distribution of leaflets and other literature calling attention to the conditions appertaining to the disease and urging, on any suspicious signs, early consultation with medical practitioners. Known cases are being urged to attend at hospitals or the Radium Institute. In Widnes (B) it is stated a contributory hospital scheme has resulted in greater use of hospitals and much earlier attendance. In one Borough a register of cancer houses is kept up-to-date.

Report No. 70, Public Health and Medical Subjects, was issued in May, 1933, by the Ministry of Health. One of the objectives of the enquiry preceding the issue of the report was an attempt to ascertain whether environmental conditions associated with occupation or industry, other than those already recognised as conducive to skin cancer, lay open to suspicion. The pamphlet contains a considerable amount of information with regard to these difficult questions.

PNEUMONIA (ALL FORMS).—The 1,367 fatalities assigned in 1933 to this disease represent 5·7 per cent. of the total deaths from all causes, and a death-rate of 0·75 per 1,000 of the estimated population—urban districts 0·78, rural districts 0·55. Compared with the year 1932 there was an increase of 64 deaths.

BRONCHITIS.—Deaths attributed to bronchitis numbered 1,159, or 162 more than in the year 1932. They represented 4·8 per cent. of the total deaths, and a death-rate of 0·64 per 1,000 of the population.

INFLUENZA.—There was a marked rise in 1933 in the number of deaths registered as due to influenza, viz., 1,227, against 515 in 1932. The death-rate was equivalent to 0·67 per 1,000 of the population. An outbreak of considerable magnitude occurred in the County in the middle of January. The infection passed rapidly through the community, but affected mostly the southern portion of the County, with the greatest intensity apparently in the areas around and south of Wigan and Bolton. Action taken by local authorities included the issue of warning leaflets, provision of special nursing assistance, closure of schools, and, in some areas, the exclusion from cinemas of children of school age.

TUBERCULOSIS (ALL FORMS).—The deaths assigned to tuberculosis affections in the aggregate numbered 1,242—tuberculosis of the respiratory system 1,010 and other forms 232. The pulmonary death-rate was 0·55 per 1,000 of the population, and non-pulmonary 0·12. The deaths and also the cases notified are fully analysed on pages 198 to 203.

CEREBRAL HÆMORRHAGE.—Under this heading 1,396 deaths are recorded, equal to 5·8 per cent. of the total deaths from all causes.

CONGENITAL DEBILITY, PREMATURE BIRTH, MALFORMATIONS, ETC., were responsible for 906 deaths, 31 less than in the year 1932. The death-rate per 1,000 of the population was 0·50.

TRANSFERABLE DEATHS.—During the year under report the following "transfers" were made :—5,663 persons who, having a fixed or usual residence in the Administrative County, died in a district other than that in which they resided, and these (known as inward transfers) have been allocated to their proper districts; 5,549 deaths occurring in County districts of persons not belonging thereto were transferred to the areas to which they belonged.

Infant Mortality.—The number of deaths of infants under one year of age registered in the Administrative County in the year 1933 was 1,607, or 34 fewer than in the preceding year. These deaths represented 6·78 per cent. of the total deaths from all causes.



An analysis of the causes of infant deaths for 1933 and the four preceding years is made in the following table :—

CAUSES OF INFANT DEATHS.

| Causes of Infant Deaths.                                    | No. of Deaths of Infants under 1 year. |             |             |             |             |
|-------------------------------------------------------------|----------------------------------------|-------------|-------------|-------------|-------------|
|                                                             | 1929.                                  | 1930.       | 1931.       | 1932.       | 1933.       |
| <b>Total—All Causes</b> ... ..                              | <b>2161</b>                            | <b>1622</b> | <b>1773</b> | <b>1641</b> | <b>1607</b> |
| Measles ... ..                                              | 22                                     | 42          | 14          | 27          | 12          |
| Scarlet Fever ... ..                                        | 2                                      | 1           | —           | —           | 1           |
| Whooping Cough ... ..                                       | 118                                    | 28          | 42          | 50          | 44          |
| Diphtheria ... ..                                           | 7                                      | 3           | 2           | 1           | —           |
| Influenza ... ..                                            | 39                                     | 3           | 28          | 14          | 23          |
| Encephalitis Lethargica ... ..                              | —                                      | 2           | —           | 1           | —           |
| Cerebro-spinal Fever ... ..                                 | 3                                      | 4           | 9           | 6           | 6           |
| Tuberculosis of Respiratory System ... ..                   | 3                                      | 1           | 1           | 2           | —           |
| Other Tuberculous Diseases ... ..                           | 18                                     | 18          | 21          | 18          | 12          |
| Bronchitis ... ..                                           | 182                                    | 79          | 122         | 91          | 94          |
| Pneumonia (all forms) ... ..                                | 392                                    | 169         | 287         | 227         | 231         |
| Other Respiratory Diseases ... ..                           | 12                                     | 11          | 8           | 12          | 8           |
| Diarrhœa, &c. ... ..                                        | 130                                    | 127         | 98          | 84          | 93          |
| Congenital Debility, Premature Birth, Malformations, &c.... | 893                                    | 856         | 929         | 917         | 889         |
| Other Causes ... ..                                         | 340                                    | 278         | 212         | 191         | 194         |

The County infant mortality as calculated per 1,000 registered live births has stood at practically the same level for the last three years, viz., 68 in 1933, 67 in 1932, and 70 in 1931. The rate for the whole of England and Wales in 1933 was 64 per 1,000 births.

Reference to the table on the next page, and to the table on page 17, will show the steady process of reduction which has taken place in the County infant mortality rate during the last forty years. In the earlier years infant rates of 177 and 175 per 1,000 births were recorded, whilst the County average for the last four years is 67 per 1,000.

The great saving of life at this period is doubtless due to a large extent to the better maternal and nursing care of the new born child, plus the great improvement in general environment and sanitary conditions. The educational activities of the public health authorities—ante-natal services, child welfare centres, home visiting, better training of midwives, etc., no doubt have also played their part. The conditions now prevailing are better than they have ever been in the past for the development of healthy childhood.

Of the 1,607 infant deaths, no less than 889, or 55 per cent. were registered as due to congenital debility, premature birth or malformation.

The local reports contain comments in regard to infant management and infant mortality, examples of which are given below :—

Chorley (B).—Rate, 1933, 99 ; 1932, 70.—The increase in 1933 is due almost wholly to one cause, namely congenital debility, prematurity, etc. The origin of these conditions is not known and therefore no specific preventive measures can be recommended. The general preventive measures which have been so successful in reducing infant mortality have had little effect on this cause of infant deaths. It has been suggested that these conditions in the infant are due largely to unsuccessful attempts to terminate pregnancy, but it is difficult to obtain reliable evidence on this matter. At the moment the education of the expectant mother in the hygiene of pregnancy, the securing of satisfactory ante-natal care for her, and other general measures designed to ensure her well-being seem to be the most hopeful preventive measures.

Colne (B).—Ignorance and carelessness on the part of the mother have been held to be the chief causes of infantile mortality, but one has to remember the impossible conditions under which many poor mothers have to live, and it does not come as a surprise that they do become careless in the insanitary environments in which they are forced to bring up children, having no means of moving to better accommodation. The majority of mothers are by no means averse from acquiring knowledge where the welfare of their children is concerned, but the mind gets so blunted by apathy engendered by the hopeless surroundings, that principles of infant care and management which are imparted to the mothers, who at first try hard to follow them out, get lost through all incentive having been destroyed before the principles have commenced to be assimilated.

Padiham.—Rate, 1933, 97 ; 1932, 54.—This increase in the infantile mortality rate is very regrettable, especially on account of the falling birth-rate, and one is forced to wonder whether lack of proper nourishment consequent on the large amount of unemployment has not reacted on the health of the expectant mother.

The following table gives the infant death-rates, County, urban, and rural, for 1933 and the preceding ten years, and also the rates for England and Wales :—

|                           | Rate of Deaths of Children under 1 Year to 1,000 Live Births. |       |       |       |       |       |       |       |       |       |           |
|---------------------------|---------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
|                           | 1923.                                                         | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. | 1930. | 1931. | 1932. | 1933.     |
| Urban Districts ...       | 82                                                            | 84    | 83    | 82    | 74    | 71    | 87    | 64    | 72    | 68    | <b>70</b> |
| Rural Districts ...       | 67                                                            | 68    | 71    | 71    | 68    | 57    | 64    | 58    | 63    | 65    | <b>61</b> |
| Administrative County ... | 80                                                            | 81    | 82    | 80    | 73    | 69    | 84    | 64    | 70    | 67    | <b>68</b> |
| England and Wales         | 69                                                            | 75    | 75    | 70    | 69    | 65    | 74    | 60    | 66    | 65    | <b>64</b> |

The tabular statement below shows the very considerable and progressive fall in the infant mortality of the Administrative County during the past 40 years :—

| Years.          | INFANT MORTALITY.              |                                        |                                                          |
|-----------------|--------------------------------|----------------------------------------|----------------------------------------------------------|
|                 | Rate of Deaths under One Year. |                                        | Percentage of Infant Deaths to Total Deaths at all ages. |
|                 | Per 1,000 Live Births.         | Per 1,000 of the Estimated Population. |                                                          |
| 1893-1897 ...   | 161                            | 4.72                                   | 26.34                                                    |
| 1898-1902 ...   | 161                            | 4.35                                   | 26.24                                                    |
| 1903-1907 ...   | 138                            | 3.52                                   | 23.77                                                    |
| 1908-1912 ...   | 122                            | 2.83                                   | 20.31                                                    |
| 1913-1917 ...   | 110                            | 2.29                                   | 15.98                                                    |
| 1918-1922 ...   | 91                             | 1.78                                   | 13.04                                                    |
| 1923-1927 ...   | 79                             | 1.27                                   | 10.26                                                    |
| 1928-1932 ...   | 70                             | 0.99                                   | 7.91                                                     |
| <b>1933 ...</b> | <b>68</b>                      | <b>0.88</b>                            | <b>6.78</b>                                              |

Death-rate amongst illegitimate children.—The statement following shows the differential incidence of mortality in 1933 amongst legitimate and illegitimate children.

|                    | Mortality per 1,000 live births. |                        |        |
|--------------------|----------------------------------|------------------------|--------|
|                    | Legitimate children.             | Illegitimate children. | Total. |
| County .. ..       | 66                               | 126                    | 68     |
| Urban districts .. | 68                               | 123                    | 70     |
| Rural districts .. | 58                               | 147                    | 61     |

District infant death-rates.—The following County districts had the highest infant death-rates in 1933 :—Hindley 141 per 1,000 registered live births, Brierfield 130, Ince-in-Makerfield 123, Whitworth 111, Ashton-in-Makerfield 107, Barrowford and Lunesdale (R) each 101, and Aspull and Colne (B) each 100.



Over a period of five years—1929–1933—the highest district averages were :—Ince-in-Makerfield 113, Whitworth 112, Royton 107, Hindley 106, and Clayton-le-Moors 101.

The lowest infant death rates in 1933 were :—Blackburn (R) 15, Tottington 23, Rishton 28, Withnell and Warrington (R) each 29, Huyton-with-Roby 31, and Clitheroe (R) 33. In Croston, Grange-over-Sands, and Presall no infant deaths occurred.

In 9 districts in 1933 the rate was between 100 and 150 per 1,000 births.

|      |   |   |   |                            |   |     |   |
|------|---|---|---|----------------------------|---|-----|---|
| „ 32 | „ | „ | „ | 75                         | „ | 100 | „ |
| „ 38 | „ | „ | „ | 50                         | „ | 75  | „ |
| „ 27 | „ | „ | „ | 25                         | „ | 50  | „ |
| „ 5  | „ | „ | „ | under 25 per 1,000 births. |   |     |   |

The table on page 17 gives the infant mortality rate for the County and for the urban and rural districts since the year 1889, and on pages 251 to 274, each district rate in 1933 is shown contrasted with the previous year's rate and with the average for the preceding five years.

## GENERAL PROVISION OF HEALTH SERVICES IN THE COUNTY.

**Hospital Accommodation.**—SMALLPOX.—OTHER INFECTIOUS DISEASES.—Table 6, pages 159 to 172, shows the nature of the hospital accommodation, both for smallpox and other infectious diseases, provided in, or available for, each County sanitary district, and the table also gives for each district the number of cases removed to hospital in the year 1933, and the number of deaths in hospital.

Summarised, the position of the Administrative County at the end of 1933 as regards hospital accommodation for smallpox and other infectious diseases is shown in the following statement :—

|                                                                                                                | For smallpox. | For infectious diseases other than smallpox. |
|----------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------|
| No. of Districts with their own Hospital                                                                       | 13            | 18                                           |
| „ constituent members of Joint Hospital Boards or Committees                                                   | 31            | 33                                           |
| „ using other hospitals within the Administrative County (i.e., belonging to other urban or rural authorities) | 9             | 8                                            |
| „ using the hospitals of Joint Hospital Boards or Committees, or belonging to County Boroughs                  | 53            | 49                                           |
| „ without hospital accommodation                                                                               | 5             | 3                                            |

The districts stated to have no hospital accommodation available are as follow :—

| For Smallpox :       | For other Infectious Diseases : |
|----------------------|---------------------------------|
| Ashton-in-Makerfield | Billinge and Winstanley         |
| Blackrod             | Mossley (B)                     |
| Hindley              | Clitheroe (R)                   |
| Lunesdale (R)        |                                 |
| Wigan (R)            |                                 |

The following changes are reported in 1933 in the local arrangements for hospital accommodation :—

For smallpox—

Huyton-with-Roby and Prescott.—Arrangements with Liverpool Corporation in lieu of the Whiston hospital.

Whiston (R).—Arrangement with Liverpool, operative from the 1st March, 1934. The use of the Whiston smallpox hospital discontinued.

For other infectious diseases—

Rainford.—From the 1st April 1933 arrangement with Ormskirk in lieu of St. Helens C.B.

Swinton and Pendlebury.—From the 1st April 1933 cases sent to the Leigh joint hospital; formerly Salford C.B. hospital used.



Comments on hospital accommodation by local Medical Officers of Health in their annual reports include :—

Billinge and Winstanley.—From the 1st April 1934 an agreement with Ashton-in-Makerfield for the treatment of diseases other than smallpox.

Colne (B).—Isolation hospital at Jerusalem Farm only suitable for an emergency.

Darwen (B).—Cubicle block recommended.

Irlam.—No definite arrangements for diseases other than smallpox.

Lancaster (B) &c.—A new joint hospital to serve Lancaster (B), Morecambe and Heysham (B) and Carnforth in course of erection.

Lytham Saint Anne's (B).—Additional cubicle ward needed.

Newton-in-Makerfield.—A discharging block needed.

Swinton and Pendlebury.—Additional accommodation under consideration.

Withnell.—From motives of economy hospital in district not used ; cases sent to other hospitals.

West Lancashire (R).—Available accommodation inadequate during an epidemic. Plans prepared for a further pavilion block.

A number of the district Medical Officers of Health comment on the action taken or advised with the object of securing that the hospital accommodation available is utilised to the best advantage. Action has been taken in certain districts to shorten the period of stay of uncomplicated cases of scarlet fever, and a number of reports indicate that in suitable cases hospital treatment has been replaced by nursing and supervision at home. In a few instances serious cases of measles have been admitted to the isolation hospitals, and also, for observation purposes, cases of encephalitis and meningitis.

Contributions towards maintenance in isolation hospitals.—In the majority of districts no attempt is made to recover the cost of maintenance of patients in isolation hospitals ; in about fourteen districts, it is stated, parents or others responsible are asked to contribute according to means ; in actual practice little action in this respect is taken.

Survey of hospital accommodation.—Under the Local Government Act, 1929, Section 63, the County Medical Officer of Health, in November 1933, issued his report on the survey of the hospital accommodation for infectious diseases throughout the County, and formulated a scheme as required by the Act. The report was forwarded to every local authority in the Administrative County for their observations.

REMOVAL OF CASES.—The following table gives the number and percentage of removals to hospital in 1933 of cases of smallpox, scarlet fever, diphtheria, and enteric fever, and contrasts the mortality of cases isolated in hospital with that of cases treated at home :—

|               |        | Total cases notified. | Hospital Treatment.        |                         |                     | Home Treatment.        |                 | Case mortality per cent. |          |
|---------------|--------|-----------------------|----------------------------|-------------------------|---------------------|------------------------|-----------------|--------------------------|----------|
|               |        |                       | Cases removed to hospital. | Percentage of removals. | Deaths in hospital. | Cases treated at home. | Deaths at home. | In hospital.             | At home. |
| Smallpox      | ... .. | 8                     | 8                          | 100                     | —                   | —                      | —               | —                        | —        |
| Scarlet Fever | ...    | 5127                  | 2816                       | 54·9                    | 13                  | 2311                   | 18              | 0·46                     | 0·77     |
| Diphtheria    | ... .. | 1639                  | 1302                       | 79·4                    | 69                  | 337                    | 40              | 5·29                     | 11·86    |
| Enteric Fever | ...    | 55                    | 37                         | 67·2                    | 6                   | 18                     | 5               | 16·21                    | 27·77    |

In 1932 the percentage of removals to hospital was—Smallpox 100 (4 cases only), scarlet fever 61·8, diphtheria 78·1, and enteric fever 50·0.

**Medical Services transferred to the County Council under the Local Government Act, 1929 :—**

The Lancashire County Council decided that the poor law functions of the Guardians as from the appointed day, namely, the 1st April, 1930, be co-ordinated with the general health services of the County, and that such functions be organised under the Clerk of the County Council as the Chief Official acting in a supervising and co-ordinating capacity, and as legal adviser; that the second official be the County Medical Officer of Health, who is responsible for the administration of medical services, hospitals, infirmaries, workhouses or institutions containing inmates requiring medical attention; and that the third official be the Public Assistance Officer, upon whom devolves—subject to the foregoing—such duties as may from time to time be assigned to him by the Public Assistance Committee.

The following statement shews the public assistance institutions, hospitals, infirmaries and homes situated within the geographical County :—

| Former Union. |     | Institution.                                        |     | Remarks.                                                                                      |
|---------------|-----|-----------------------------------------------------|-----|-----------------------------------------------------------------------------------------------|
| Ulverston     | ... | Ulverston Institution                               | ... | Wholly County.                                                                                |
| Lancaster     | ... | Lancaster Institution and Infirmary                 | ... | } Wholly County.                                                                              |
|               | ... | Children's Home, Parkside                           | ... |                                                                                               |
| Lunesdale     | ... | Lunesdale Institution, Hornby                       | ... | Wholly County.                                                                                |
| Garstang      | ... | Garstang Institution...                             | ... | Wholly County.                                                                                |
| Kirkham       | ... | } Fylde Institution and Infirmary                   | ... | } Institutions vested in the County.                                                          |
| Fylde         | ... |                                                     | ... |                                                                                               |
|               | ... | Cottage Homes, Kirkham                              | ... | } Receive Blackpool County Borough cases under "user" agreement.                              |
| Preston       | ... | Preston Institution, Fulwood                        | ... | } Vested in the County Borough of Preston. Receive County cases under "user" agreement.       |
|               | ... | Sharoe Green Hospital                               | ... |                                                                                               |
|               | ... | Children's Homes                                    | ... |                                                                                               |
|               | ... | Brockholes View                                     | ... |                                                                                               |
|               |     | Ribchester Institution                              | ... | Vested in the County Council. Receives Preston County Borough cases under "user" agreement.   |
| Chorley       | ... | Eaves Lane Institution                              | ... | Wholly County.                                                                                |
| Blackburn     | ... | Queen's Park Hospital                               | ... | } Vested in the Blackburn County Borough. Receive County cases under "user" agreement.        |
|               | ... | Cottage Homes                                       | ... |                                                                                               |
|               | ... | Working Boys' Home                                  | ... |                                                                                               |
| Clitheroe     | ... | Coplow View                                         | ... | Vested in the County Council. Receives West Riding cases under "user" agreement.              |
| Burnley       | ... | Primrose Bank                                       | ... | } Vested in the Burnley County Borough. Receive County cases under "user" agreement.          |
|               | ... | Boys' Home                                          | ... |                                                                                               |
| Haslingden    | ... | Moorlands Institution, Infirmary and Maternity Home | ... | Wholly County.                                                                                |
| Ormskirk      | ... | Ormskirk Institution                                | ... | Vested in the County Council. Receives Southport County Borough cases under "user" agreement. |
| Wigan         | ... | Frog Lane Institution                               | ... | } Vested in Wigan County Borough. Receive County cases under "user" agreement.                |
|               | ... | Billinge Hospital                                   | ... |                                                                                               |

| Former Union.      |     |     | Institution.                                     |     |     | Remarks.                                                                                       |
|--------------------|-----|-----|--------------------------------------------------|-----|-----|------------------------------------------------------------------------------------------------|
| Bolton             | ... | ... | Fishpool House                                   | ... | ... | Vested in Bolton County Borough. Reeeive County eases under "user" agreement.                  |
|                    |     |     | Townley's Hospital                               | ... | ... |                                                                                                |
|                    |     |     | Hollins Cottage Homes                            | ... | ... |                                                                                                |
|                    |     |     | Working Boys' Home                               | ... | ... |                                                                                                |
|                    |     |     | Kingsgate Institution                            | ... | ... |                                                                                                |
| Bury               | ... | ... | Jericho Institution                              | ... | ... | Vested in the County Council. Reeeives Bury County Borough cases under "user" agreement.       |
| Roehdale           | ... | ... | Bireh Hill Institution                           | ... | ... | Vested in Roehdale County Borough. Reeeive County eases under "user" agreement.                |
|                    |     |     | Bireh Hill Hospital                              | ... | ... |                                                                                                |
|                    |     |     | Cottage Homes                                    | ... | ... |                                                                                                |
| Prescot            | ... | ... | Whiston Institution and Infirmary                |     |     | Vested in the County Council. Reeeives St. Helens County Borough cases under "user" agreement. |
| Leigh              | ... | ... | Leigh Institution                                | ... | ... | Wholly County.                                                                                 |
| Warrington         | ... |     | White Cross Institution and Mental Wards         | ... | ... | Vested in the Warrington County Borough. Reeeive County eases under "user" agreement.          |
|                    |     |     | White Cross Hospital                             | ... | ... |                                                                                                |
|                    |     |     | Padgate Cottage Homes                            | ... | ... |                                                                                                |
| Barton-upon-Irwell |     |     | Green Lane Institution                           | ... | ... | Wholly County.                                                                                 |
|                    |     |     | Park Hospital                                    | ... | ... |                                                                                                |
| Oldham             | ... | ... | Boundary Park Institution                        | ... | ... | Vested in the Oldham County Borough. Reeeive County eases under "user" agreement.              |
|                    |     |     | Boundary Park Hospital                           | ... | ... |                                                                                                |
|                    |     |     | Children's Scattered Homes                       | ... | ... |                                                                                                |
|                    |     |     | Working Children's Homes...                      | ... | ... |                                                                                                |
| Ashton-under-Lyne  |     |     | Darnton House                                    | ... | ... | Vested in the County Council. Reeeive Cheshire County Council cases under "user" agreement.    |
|                    |     |     | Lake Hospital                                    | ... | ... |                                                                                                |
| Manchester         | ... | ... | Crumpsall Hospital                               | ... | ... | Vested in Manchester City. Reeeive Prestwieh and Failsworth cases under "user" agreement.      |
|                    |     |     | Crumpsall Institution                            | ... | ... |                                                                                                |
|                    |     |     | Rose Hill Convalescent Home                      | ... | ... |                                                                                                |
|                    |     |     | Withington Hospital                              | ... | ... |                                                                                                |
|                    |     |     | Withington Institution                           | ... | ... |                                                                                                |
|                    |     |     | Langho Colony                                    | ... | ... |                                                                                                |
|                    |     |     | Booth Hall Hospital                              | ... | ... |                                                                                                |
|                    |     |     | Swinton Home                                     | ... | ... |                                                                                                |
|                    |     |     | Styal Cottage Homes                              | ... | ... |                                                                                                |
|                    |     |     | Dr. Rhode's Homes                                | ... | ... |                                                                                                |
| Salford            | ... | ... | Hope Hospital                                    | ... | ... | Vested in Salford City. Reeeive County cases under "user" agreement.                           |
|                    |     |     | Old People's Homes                               | ... | ... |                                                                                                |
|                    |     |     | Culcheth Cottage Homes                           | ... | ... |                                                                                                |
| West Derby         | ... |     | Mill Road Infirmary, Liverpool                   | ... | ... | Vested in the Liverpool City. Reeeive County eases under "user" agreement.                     |
|                    |     |     | Alder Hey Hospital, Liverpool                    | ... | ... |                                                                                                |
|                    |     |     | Belmont Road Institution, Liverpool              | ... | ... |                                                                                                |
|                    |     |     | Olive Mount Cottage Homes, Waver-tree, Liverpool | ... | ... |                                                                                                |
|                    |     |     | Cottage Homes, Fazaackerley                      | ... | ... |                                                                                                |
|                    |     |     | Kirkdale Homes, Liverpool...                     | ... | ... |                                                                                                |
|                    |     |     | Smithdown Road Institution, Liverpool            | ... | ... |                                                                                                |
|                    |     |     | Seafeld House, Litherland                        | ... | ... |                                                                                                |
|                    |     |     | Deysbrook House, Liverpool                       | ... | ... |                                                                                                |
|                    |     |     | Walton Institution, Liverpool                    | ... | ... |                                                                                                |

The following table shows the treatment of in-patients at institutions and hospitals under the control of the Lancashire Public Assistance Committee during the 12 months ended 31st December, 1933:—



| INSTITUTION<br>OR<br>HOSPITAL. | No. of beds available for sick,<br>maternity and mental cases. |        |                                | 1.    | 2.    | 3.     | 4.     | 5.    | 6.    | 7.  | 8.  | 9.  | No. of beds occupied. |                 |                | 11.   | 12.   |       |     |                                  |
|--------------------------------|----------------------------------------------------------------|--------|--------------------------------|-------|-------|--------|--------|-------|-------|-----|-----|-----|-----------------------|-----------------|----------------|-------|-------|-------|-----|----------------------------------|
|                                | Men.                                                           | Women. | Children<br>(under<br>16 yrs.) |       |       |        |        |       |       |     |     |     | (a)<br>Average.       | (b)<br>Highest. | (c)<br>Lowest. |       |       |       |     |                                  |
|                                |                                                                |        |                                |       |       |        |        |       |       |     |     |     |                       |                 |                |       |       |       |     |                                  |
| Ulverston                      | ...                                                            | ...    | ...                            | 36    | 123   | 6      | 155    | 3     | 2     | 1   | ... | ... | 32                    | 112             | 157            | 172   | 146   | ...   | ... | No. of<br>Abdominal<br>Sections. |
| Lancaster                      | ...                                                            | ...    | ...                            | 49    | 45    | 8      | 270    | 7     | 7     | ... | ... | ... | 64                    | 207             | 80             | 97    | 65    | ...   | ... | ...                              |
| Fylde                          | ...                                                            | ...    | ...                            | 68    | 79    | 3      | 496    | 7     | 7     | ... | 1   | ... | 156                   | 405             | 126            | 134   | 118   | ...   | ... | ...                              |
| Garstang                       | ...                                                            | ...    | ...                            | 14    | 7     | 1 cot  | 22     | 2     | 2     | ... | ... | ... | 4                     | 9               | 9              | 12    | 5     | ...   | ... | ...                              |
| Chorley                        | ...                                                            | ...    | ...                            | 82    | 93    | 13     | 479    | 101   | 98    | 4   | 5   | ... | 52                    | 403             | 147            | 161   | 136   | ...   | ... | ...                              |
| Clitheroe                      | ...                                                            | ...    | ...                            | 24    | 21    | 2      | 103    | ...   | ...   | ... | ... | ... | 21                    | 89              | 34             | 41    | 26    | ...   | ... | ...                              |
| Moorlands, Rawtenstall         | ...                                                            | ...    | ...                            | 113   | 151   | 32     | 1,134  | 246   | 238   | 8   | 5   | ... | 181                   | 966             | 249            | 284   | 217   | ...   | ... | ...                              |
| Ormskirk,                      | ...                                                            | ...    | ...                            | 150   | 144   | 8      | 1,035  | 33    | 32    | 3   | 3   | ... | 203                   | 840             | 242            | 279   | 218   | ...   | ... | ...                              |
| Jericho, Bury                  | ...                                                            | ...    | ...                            | 123   | 222   | 36     | 1,810  | 274   | 255   | 19  | 3   | ... | 309                   | 1,513           | 332            | 355   | 286   | 98    | 26  | 26                               |
| Whiston                        | ...                                                            | ...    | ...                            | 353   | 253   | 100    | 2,299  | 71    | 66    | 5   | 2   | ... | 283                   | 2,001           | 277            | 316   | 240   | 412   | 107 | 107                              |
| Leigh                          | ...                                                            | ...    | ...                            | 90    | 99    | 7 cots | 505    | 16    | 16    | 1   | ... | ... | 119                   | 368             | 147            | 161   | 133   | ...   | ... | ...                              |
| Park Hospital, Davyhulme       | ...                                                            | ...    | ...                            | 190   | 270   | 40     | 5,574  | 750   | 720   | 32  | 27  | ... | 476                   | 5,068           | 361            | 442   | 291   | 2,207 | 385 | 385                              |
| Green Lane, Patricroft         | ...                                                            | ...    | ...                            | 171   | 197   | 18     | 437    | ...   | ...   | ... | ... | ... | 142                   | 307             | 336            | 351   | 313   | ...   | ... | ...                              |
| Lake Hospital, Ashton-u-Lyne   | ...                                                            | ...    | ...                            | 172   | 253   | 27     | 2,382  | 410   | 380   | 53  | 15  | ... | 449                   | 1,954           | 358            | 388   | 337   | 130   | 40  | 40                               |
| Totals                         | ...                                                            | ...    | ...                            | 1,635 | 1,957 | 301    | 16,701 | 1,920 | 1,823 | 126 | 61  | ... | 2,491                 | 14,242          | 2,855          | 3,193 | 2,531 | 2,847 | 558 | 558                              |

## SURVEY OF PUBLIC ASSISTANCE HOSPITALS AND INFIRMARIES.

The work of surveying the Public Assistance hospitals and infirmaries has been continued and many improvements have been effected during the last year, the most important of which are shown in tabular form later. In addition, larger schemes which have been approved in principle are in an advanced state of preparation. The task of bringing all the hospitals transferred to the County Council under the Local Government Act, 1929, to a satisfactory state of efficiency would have been comparatively simple but for two important and closely related factors.

The first, common to both public and voluntary hospitals, is the rapid progress made in recent years in the methods of diagnosis and treatment of both medical and surgical cases: To carry out these new methods a considerable increase in the medical and nursing staff is necessary, whilst the technical equipment, complicated and expensive, needs accommodation in specially built premises. Such facilities as X-rays, pathological laboratory, electro-medical department, are now deemed essential to any hospital which provides treatment other than mere nursing care of the aged and infirm.

The second factor, perhaps more difficult to deal with administratively, is the remarkable change in the general attitude towards hospital treatment. A variety of causes have led to this marked increase in the demand for hospital facilities. There is the fact already referred to that for the purposes of diagnosis and treatment, biological, biochemical and X-ray examinations are frequently required. The special departments of hospitals have to a large extent met this demand. It is necessary in some instances for the patients to attend at the hospital and in others, before the investigation can be fully completed, for them to be actually admitted to the hospital wards.

The special demand for maternity beds may be only slightly related to the above factors and results perhaps more simply from a general approval of the comfort and nursing services provided in the maternity units of the several hospitals, and from the activities of ante-natal centres. The combination, however, of these various influences explains in large measure why the general community has become in recent years more "hospital minded."

Improved methods of transport by motor ambulance services, and difficult housing conditions have also played their part in creating the new and steadily increasing demand for hospital beds. The monetary resources of the voluntary hospitals may not generally be sufficient to meet present day needs, and it appears probable that in the future the burden of providing additional hospital facilities will fall upon local authorities, whilst the fact that the average age of the population has increased renders it still necessary to make liberal provision for the aged.

The following report upon the institution at Ashton-under-Lyne which includes both Darnton House and Lake Hospital, has been prepared with these changing social tendencies in mind, and the report contains recommendations as to how this institution can be used to the best advantage:—

## ASHTON-UNDER-LYNE PUBLIC ASSISTANCE INSTITUTION.

This institution is situated in the Municipal Borough of Ashton-under-Lyne, in the open district of the Chamber Hills, close to the Cheshire boundary. The site, triangular in shape, with a total area of 98,300 square yards, includes within the same curtilage the Lake Hospital and the group of buildings known as Darnton House, the oldest portion of which was built in 1850–51. Extensions to provide additional accommodation for sick and mental cases, were made from time to time, the most recent being the Lake Hospital, which was erected in 1905 and is an entirely self-contained unit with separate entrances on to Mellor Road and overlooking Stamford Park. Care was taken in the planning of this hospital to allow for future additions to the Ward Blocks and Nurses' Home.

The institution serves a very large area, comprising the following districts:—

| District.                     | Population<br>Estimate<br>1932. | Area in<br>Statute<br>acres. | Rateable<br>value at<br>1st April,<br>1933. | Estimate of<br>the product<br>of 1d. rate<br>for the year<br>1933–34. |
|-------------------------------|---------------------------------|------------------------------|---------------------------------------------|-----------------------------------------------------------------------|
|                               |                                 |                              | £                                           | £                                                                     |
| Limchurst R.D. ... ..         | 8,656                           | 4,689                        | 27,856                                      | 105                                                                   |
| Ashton-under-Lyne M.B. ... .. | 51,040                          | 1,982                        | 221,711                                     | 835                                                                   |
| Mossley M.B. ... ..           | 11,950                          | 3,624                        | 43,109                                      | 160                                                                   |
| Audenshaw U.D. ... ..         | 8,806                           | 1,241                        | 49,028                                      | 200                                                                   |
| Denton U.D. ... ..            | 17,620                          | 2,594                        | 81,607                                      | 325                                                                   |
| Droylsden U.D. ... ..         | 14,320                          | 1,009                        | 55,382                                      | 227                                                                   |
| Lees U.D. ... ..              | 4,703                           | 288                          | 17,432                                      | 66                                                                    |
|                               | 117,095                         | 15,427                       | 496,125                                     | 1,918                                                                 |

The total population of these districts is 117,095, the rateable value at the 1st April, 1933, being £496,125, and the estimated product of a penny rate is £1,918.



In addition the following districts, situated in the County of Cheshire, and formerly part of the Ashton Union, have the usership of the institution :—

| District.                          | Population<br>Estimate<br>1932. | Area in<br>Statute<br>Acres. |
|------------------------------------|---------------------------------|------------------------------|
| Tintwistle R.D. ... ..             | 2,006                           | 13,619                       |
| Dunkinfield M.B. ... ..            | 19,390                          | 1,407                        |
| Stalybridge M.B. ... ..            | 24,880                          | 3,132                        |
| Hollingworth U.D. ... ..           | 2,250                           | 2,086                        |
| Mottram-in-Longdendale U.D. ... .. | 2,591                           | 1,084                        |
|                                    | 51,117                          | 21,328                       |

The total population served by the Institution is therefore 168,212, covering an area of 36,755 acres.

Services common to Lake Hospital and Darnton House :—

Sewerage.—The drainage system is connected to the sewers of the Ashton-under-Lyne Corporation, to which there is free access from all parts of the site.

Water.—Water is supplied by the Ashton, Dukinfield and Stalybridge Joint Water Board. A recent analysis gave the following results :—

Alkalinity (in terms of Calcium Carbonate) 4·5 parts per 100,000.

Hardness (temporary) 1·7°.

Hardness (permanent) 4·1°.

Lead, Nil.

The water is a pure water, suitable for domestic and boiler purposes, and has no erosive action upon lead.

Heating.—Heating is provided by two Lancashire boilers, approximately 30 years old. Considerable trouble has been experienced in obtaining satisfactory heating of the wards, and adequate supplies of hot water, and some years ago the boilers were removed from the specially built power house to their present more central quarters and the system re-arranged. Further difficulties have, however, arisen and the work necessary for the provision of a hot-water supply for all purposes is at present being carried out.

Lighting and Power.—Electricity is supplied by the Ashton-under-Lyne Corporation.

The charges are according to the following scale :—

|          |                                                              |           |     |                    |           |
|----------|--------------------------------------------------------------|-----------|-----|--------------------|-----------|
| Lighting | First                                                        | 500 units | ... | 4d.                | per unit. |
|          | Next                                                         | 500       | „   | 3 $\frac{3}{4}$ d. | „ „       |
|          | „                                                            | 1,000     | „   | 3 $\frac{1}{2}$ d. | „ „       |
|          | „                                                            | 3,000     | „   | 3d.                | „ „       |
|          | Low rate from 11 p.m. to 4 p.m. next day<br>at 2d. per unit. |           |     |                    |           |
| Power    | First                                                        | 250 units | ... | 1 $\frac{1}{2}$ d. | per unit. |
|          | Next                                                         | 250       | „   | 1 $\frac{1}{4}$ d. | „ „       |
|          | „                                                            | 500       | „   | 1d.                | „ „       |
|          | Above                                                        | 1,000     | „   | $\frac{3}{4}$ d.   | „ „       |

Heating 1d. per unit.

Gas. This is supplied by the Ashton-under-Lyne Gas Company, the charges being 8·4d. per therm.

Disinfecter.—This is of the Washington Lyons (Manlove Alliott) type and is fully able to cope with all demands.

Laundry.—The laundry (steam power) deals with about 18,000 articles per week and is under the control of the master and matron. Paid and unpaid labour is employed. A modern press and a two roller Bradford callendar have recently been added to the equipment. The drying apparatus is obsolete and judged by modern standards the system used is wasteful, and not free from danger in its working. The quantity of material now laundered is greatly in excess of the normal capacity of the drying horses, and to maintain output high temperatures are needed. Experience has shown that these react unfavourably upon the workers, and in a laundry of this size the installation of a continuous dryer and a drying tumbler is necessary for efficient and economical working.



**Mortuary.**—The existing mortuary is small, and there is no proper accommodation for the relatives and friends of deceased patients or for technical purposes. The peak number of deaths is 21 and in recent times conditions in this building have been unsatisfactory.

To meet present day needs the mortuary should be enlarged and should provide the following :—

- (1) Body store for 18 cases, with space for extensions to 24 cases, and the necessary refrigerating plant.
- (2) Waiting room.
- (3) Viewing room.
- (4) Post mortem room.

#### Darnton House.

This part of the institution is under the supervision of a master and matron and provides accommodation for 600 inmates, including house, infirm and mental cases. The annexe wards, occupied chiefly by chronic sick transferred from Lake Hospital are under the same supervision. In the housing of the various classes of inmates better use could be made of these premises. A certain amount of re-organisation, together with internal structural alterations, will be necessary, the following departments being chiefly affected :—

(1) **Infirm Men.**—Many of these are crippled or aged men. In addition cases from Lake Hospital, who are not sufficiently recovered to be sent home, or more frequently have not suitable homes, are sent to this department to complete their convalescence. The present quarters are on the first floor and it is recommended that this class of inmate be transferred to ground floor wards in order that easier access to the open air may be obtained.

(2) **Day Room Accommodation.**—The condition of most of the day rooms is unsatisfactory either on account of overcrowding or insufficient lighting and ventilation.

(3) **Male Mental Wards.**—The structure of these wards is similar to the wards used at present for House men. In both cases there is a large amount of unutilised space, whilst the rooms in use are inadequate for their several purposes.

(4) **Children's Accommodation.**—(a) **Nursery.**—This accommodates healthy children under three years of age. The wooden structure which forms a vestibule to this ward is apparently not used and its removal would effect an improvement.

The provision of a balcony on the south side would be advantageous and enable very young children to be cared for under suitable open air conditions.

(b) **Healthy Children.**—Healthy children are removed as soon as possible to the Padgate Children's Home. Pending this removal, however, there is no special accommodation for children and the system, as it exists, is open to serious criticism. Instances occur where children are kept in the adult wards of the House for six or more weeks.

Pending their transfer special accommodation for healthy children should be provided, and in addition this would enable children to be discharged from the hospital wards at an earlier date to complete their convalescence.

A child remaining in a sick ward, even for a short period after its recovery, tends to develop a lowered vitality, and in some cases a definite relapse may occur.

**The Annexe Wards.**—These wards accommodate the overflow cases from the hospital, and are occupied at present chiefly by chronic cases. Having an open southern aspect, balconies could be provided, not only as an amenity for all their inmates but to enhance the prospect of recovery for many types of long continuing sickness.

**Summary.**—There are many instances in Darnton House where the conditions are prejudicial to the health and welfare of the inmates.

In general the best use is not made of accommodation for house, infirm and mental cases.

A considered scheme of re-organisation with the necessary structural alterations should be submitted including the following recommendations :—

- (1) The transfer of male infirm patients to ground floor wards.
- (2) Alterations to day rooms.
- (3) Internal structural alterations to the male mental and existing male house wards, which would bring into use much dead space.
- (4) The provision of a balcony for the nursery.
- (5) The provision of balconies for the annexe wards.
- (6) The provision of a separate block for healthy and convalescent children.
- (7) The modernisation of the laundry drying equipment.

Lake Hospital.

The Lake Hospital.—This is a self-contained unit situated on the north-west portion of the site. Erected in 1905 and opened in January, 1906, the buildings consist of amply spaced male and female pavilions with an administration block in between. The three blocks are connected by a central corridor. The pavilions on the west side of the corridor are two storey buildings; those on the east side are three storey buildings. Bed lifts are provided for each hospital block. The site allows for the addition of two more pavilions placed north and south of those already erected. The Nurses' Home is a separate building in close proximity to the hospital and provides sleeping and sitting room accommodation. Land is also available for the extension of this Home.

Medical Staff.

| Name.                   | Qualifications.                                                                 | Nature of Appointment.                              |
|-------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------|
| Dr. W. E. C. Thomas ... | M.B., B.Ch. (Wales)<br>M.R.C.S. (England)<br>L.R.C.P. (London)<br>B.Sc. (Wales) | Medical Superintendent, Part-time,<br>Non-resident. |
| Dr. Muriel Brighton ... | M.B., B.S., London<br>D.P.H., B.Hy.                                             | Senior Resident Medical Officer.                    |
| Dr. John M. Ross ...    | M.B., Ch.B., Aberdeen                                                           | Junior Resident Medical Officer.                    |
| Mr. F. G. Ralphs ...    | M.B., Ch.B., Vict., Manch.<br>F.R.C.S., Edin.                                   | Visiting Surgeon (Part-time).                       |

Nursing Staff.

- 1 Matron.
- 1 Assistant matron (also acts as home sister).
- 1 Night superintendent.
- 5 Ward sisters (one of whom acts as maternity sister).
- 5 Staff nurses (one of whom acts as sister).
- 42 Probationer nurses.
- 2 Pupil midwives.

The matron and assistant matron take theatre duty and they also carry out the duties of sister tutor for the senior and junior probationers respectively.

The Hospital Buildings.—The male and female pavilions provide ten wards which are allocated for the following cases :—

|                       |     |                       |                   |
|-----------------------|-----|-----------------------|-------------------|
| A 1 Ward ...          | ... | Medical (female) ...  | } North Pavilion. |
| A 2 Ward ...          | ... | Surgical (female) ... |                   |
| B 1 } Wards ...       | ... | Maternity ...         |                   |
| B 2 }                 | ... | ...                   |                   |
| 1 Children's Ward ... | ... | (male and female) ... | } South Pavilion. |
| E Ward ...            | ... | Medical (female) ...  |                   |
| C 1 Ward ...          | ... | Surgical (male) ...   |                   |
| C 2 Ward ...          | ... | Medical (male) ...    |                   |
| D 1 Ward ...          | ... | Medical (male) ...    |                   |
| D 2 Ward ...          | ... | Medical (male) ...    |                   |

The above Wards give the following number of beds :—

|                                   |     |     |     |     |
|-----------------------------------|-----|-----|-----|-----|
| (a) Medical (all forms)...        | ... | ... | ... | 140 |
| (b) Surgical (all forms)          | ... | ... | ... | 56  |
| (c) Maternity ...                 | ... | ... | ... | 40  |
| (d) Children (including cots) ... | ... | ... | ... | 28  |

The Wards are well designed with cross ventilated sanitary annexes.

The dimensions of the main wards are :—

|            |     |     |     |     |         |
|------------|-----|-----|-----|-----|---------|
| Length ... | ... | ... | ... | ... | 75' 6". |
| Width ...  | ... | ... | ... | ... | 24' 6". |
| Height ... | ... | ... | ... | ... | 13' 0". |

Each Ward has attached two double-bedded side wards with day room, kitchen, linen and food stores.



Administration Block.—The administration block includes :—

- (1) Operation theatre.
- (2) Dispensary.
- (3) Matron's quarters.
- (4) Resident Medical Officers' quarters.
- (5) Domestics' quarters.
- (6) Hospital kitchen.
- (7) Nurses' dining room.
- (8) Sufficient lavatory and bath room accommodation.
- (9) Store rooms, sewing room, etc.
- (10) Committee room.

Operation Theatre.—This consists of the theatre proper with an ante-room in which the patients are anaesthetised. The sterilising plant, also in the ante-room, would be improved by the addition of a mechanically operated bowl steriliser.

The theatre itself is well lighted and ventilated and, apart from the washing accommodation, well equipped.

There is, however, only one lavatory basin for the use of Surgeons and Nurses and this is placed too close to the sluice.

The aseptic technique of the theatre would be better safeguarded by placing two modern lavatory basins in the theatre and removing the present basin and sluice to the ante-room for the use of the nursing staff in charge of the sterilisers.

The number of surgical operations performed during the past five years is shown in the following table :—

| Year.    | Surgical Operations. |     |     |     |     | Number. |
|----------|----------------------|-----|-----|-----|-----|---------|
| 1929 ... | ...                  | ... | ... | ... | ... | 104     |
| 1930 ... | ...                  | ... | ... | ... | ... | 80      |
| 1931 ... | ...                  | ... | ... | ... | ... | 99      |
| 1932 ... | ...                  | ... | ... | ... | ... | 117     |
| 1933 ... | ...                  | ... | ... | ... | ... | 130     |

These numbers do not indicate that this particular branch of work is materially increasing, no doubt owing to the close proximity of the Ashton-under-Lyne District Infirmary which is better equipped for dealing with large numbers.

Anæsthetics are given by the Resident Medical Officers. Many of the operations are of a major character and the appointment of a Visiting Anæsthetist, fully experienced in this highly specialised branch of work, is recommended.

Dispensary.—The accommodation for dispensing medicines and dispensary stores is ample.

A part-time dispenser is employed.

Domestic Quarters.—The domestic corridor should normally provide for seven domestics' bedrooms, with a domestic staff sitting room, head cook's sitting room, and one spare room.

This sleeping and sitting room accommodation is now largely taken over to provide sleeping accommodation for 17 probationer nurses, and three of the domestics are housed in the porter's lodge.

Hospital Kitchen.—The efficiency of this important department is influenced by the general lay-out, equipment, and staff organisation. The lay-out should be such that the preparation, cooking, service, and washing-up processes can be carried out in an orderly sequence.

The equipment, including sinks for the preparation and washing-up rooms, should be sufficient to ensure that the various foodstuffs can be dealt with in a clean and expeditious manner.

A well organised and efficient kitchen staff is one of the main responsibilities of the matron. The hospital kitchen is probably the key department of the institution, and the daily provision of nutritious and appetising meals both for patients and staff can only be maintained by intelligent planning and constant supervision. In this work the matron has the assistance of the home sister and the head cook, each of whom have their particular responsibilities. Their interest and enthusiasm in the working of the kitchen should be communicated to the other members of the staff, all of whom should realise that they are members of a team carrying out highly important duties.



A poorly organised and ill-equipped kitchen is wasteful of much more than labour and food-stuffs. The preparation, cooking, and not least, the serving of meals, has far reaching effects and where these processes are unsatisfactory the cumulative results are seen in delayed convalescence of patients and the increased incidence of sickness among the staff.

The truly economical kitchen is one in which every care has been taken in lay-out and equipment, a high standard of service set and consistently maintained.

The hospital kitchen at the Lake Hospital provides for patients in the hospital proper, the Resident Medical Officers, nursing and domestic staffs.

The demands made upon this department are very heavy. Special diets for medical cases are a feature of modern methods of treatment of disease, and the number of such diets provided, already considerable, is likely to increase. In addition the fact that the kitchen serves the hospital staff, some of whom are on night duty, entails the serving of a large number of ordinary meals. In some respects the department needs better adapting for these various purposes and the kitchen staff requires augmenting.

Accommodation for the preparation of foodstuffs, particularly vegetables, is inadequate, and the method of dealing with fish is wasteful of heat and labour.

Service to and from the nurses' dining room could be improved by minor alterations to the premises.

The ventilation of the kitchen is defective and the provision of an extractor fan would appear advisable.

More sinks are required both for the preparation rooms and in the washing-up section.

The method of conveying food to the wards and its service there is not good. The equipment for these purposes is obsolete and should be replaced by trolleys fitted with heated containers.

In general, this department needs re-organizing with regard to lay-out, equipment, and staff organization.

#### Special Departments.

The Lake Hospital is a well constructed and soundly planned group of buildings which can be adapted to fulfil the purposes of a modern hospital.

To ensure this, however, it will be necessary to create special departments, where those forms of treatment and methods of diagnosis, which cannot be undertaken in the wards, can be carried out. Laboratory facilities, the use of X-rays, electro and physio-therapy are the means by which patients, of the types now admitted to the hospital, can be treated.

**Pathological Department.**—No facilities exist at the Lake Hospital for carrying out pathological investigations. It is true that certain specimens are sent to the pathologist at the District Infirmary, but such a system is open to grave objections. Biochemical and other investigations cannot be carried out to the best advantage of the patients unless there is close contact between the clinician and the pathologist.

In both medical and surgical cases the correct interpretation of particular findings may in fact depend upon the clinical condition, and in other cases the preparation of the patient and the collection of the specimen should be under the direct supervision of the pathologist.

It would also be necessary to engage the services of a visiting pathologist and provide a laboratory attendant. The visiting pathologist would also act as consulting physician. These measures when carried out would be of great benefit to the patients and by strengthening the medical staff would lighten the responsibilities of the Medical Superintendent which are, on clinical grounds alone, unduly heavy.

**Out-Patients' Department.**—The proximity of the District Infirmary and still more the entire lack of facilities for carrying out laboratory investigations at the Lake Hospital, probably accounts for the absence of a system by which patients discharged from hospital can from time to time be re-examined. The establishment of a pathological laboratory would enable this "continuation" branch of work to be developed, thus avoiding the retention of patients who could otherwise be conveniently sent home, and saving the re-admission of many cases, who owing to lack of supervision have relapsed.

**X-Ray Diagnosis and Treatment.**—Patients requiring the use of X-rays for the diagnosis of their condition are sent to the Ashton-under-Lyne District Infirmary, the following charges being made :—

|                                               | £ | s. | d. |
|-----------------------------------------------|---|----|----|
| Radiograms of bones, joints and chests ... .. | 1 | 1  | 0  |
| Barium enema ... ..                           | 2 | 2  | 0  |
| Full barium meal ... ..                       | 3 | 3  | 0  |

For the year ended 31st December, 1933, the number of patients sent for X-ray was 70, at a total cost of £118 12s. 6d., exclusive of charges made to fee paying patients. The work carried out has consisted entirely of radiograms, for diagnostic purposes. The treatment of cases by X-ray therapy has not yet been adopted, and is not available at the District Infirmary. There is little doubt that work of this character is not sufficiently developed.

**Electro Medical and Massage.**—The establishment of a department in which radiant heat, diathermy and light treatment, etc., can be applied, would increase the efficiency of the hospital. These forms of treatment are given in fracture and joint cases; to patients suffering from toxic nerve conditions—sciatica, neuritis, etc.,—and to those who have had a prolonged illness in bed. Together with remedial exercises and massage they are useful in improving muscular tone and assist in obtaining an earlier restoration of function.

Patients discharged from the wards would also be able to attend for “continuation” treatment, and thus many prolonged stays in hospital would be avoided.

**Dental Treatment.**—A Dental Surgeon visits the hospital by arrangement to carry out any necessary treatment. The fees are on the scale laid down by the National Health Insurance Commissioners.

**Maternity Department.**—Patients are accepted from the whole of the No. 16 Public Assistance Area, the total population of which is 117,095.

In addition the Councils of Ashton-under-Lyne and Stalybridge have made arrangements under their Maternity and Child Welfare schemes to send cases. The fees for such cases are £2 2s. 0d. per week for ordinary cases and £3 3s. 0d. per week for surgical cases. The Maternity and Child Welfare Committee of the Lancashire County Council have made similar arrangements.

The following table gives the number of admissions for the years 1924–1933 :—

| Births. |      |                    |                  |        |
|---------|------|--------------------|------------------|--------|
| Year    |      | Ordinary Patients. | Paying Patients. | Total. |
| 1924    | ...  | 30                 | 51               | 81     |
| ”       | 1925 | 59                 | 49               | 108    |
| ”       | 1926 | 53                 | 78               | 131    |
| ”       | 1927 | 50                 | 131              | 181    |
| ”       | 1928 | 82                 | 125              | 207    |
| ”       | 1929 | 98                 | 111              | 209    |
| ”       | 1930 | 96                 | 150              | 246    |
| ”       | 1931 | 127                | 163              | 290    |
| ”       | 1932 | 190                | 176              | 366    |
| ”       | 1933 | 257                | 174              | 431    |

In order to cope with this rapid increase of maternity cases the resources of the hospital have been strained to a degree which is disquieting. The growth in numbers as shown by the table is remarkable. Even so, the fact that the local authorities’ schemes have only come into force quite recently indicates that development has not ceased, and that further provision will be necessary.

To deal with this influx of work the whole of B floor (actually two-fifths of the female hospital accommodation) has been taken over, providing 40 beds for maternity cases. A side ward of B block has been converted into a labour ward, and another side ward is used for emergency cases and a babies’ bathroom. In addition a certain amount of ante-natal work is carried out in this unit, the facilities for this branch of work being very meagre. The position is most unsatisfactory and in view of the many difficulties, both with regard to the proper segregation of patients, care of infants, ante-natal and post-natal supervision, it is strongly recommended that a complete maternity unit be erected. This block should be large enough to accommodate 50 maternity patients, with the necessary labour theatres, night nursery, single bedded rooms for special and observation cases, bathrooms and sanitary annexes. The unit should be self-contained with facilities for carrying out obstetrical work in a safe manner and also providing essential ante-natal and post-natal services.

The services of a visiting obstetrician should be engaged and this officer would supervise both the internal and external branches of maternity work, and carry out operations of a gynæcological character. The number of maternity cases dealt with warrants official approval of the hospital as a Training School for an increased number of pupil midwives. The number trained per annum at present is four, but this number could be raised to twelve, and thus trained nurses from other hospitals, desiring to obtain the certificate of the Central Midwives Board, could be received.



## General Hospital Accommodation.

Apart from the fact that the existing maternity wards are ill-adapted for their several purposes, the remaining portion of the hospital is subjected to undue pressure, and the provision of a new maternity block would release beds urgently required for new admissions and better classification of the patients.

The following table gives the total admissions and discharges for the last ten years.

| Year.    | Admissions. | Discharges. |
|----------|-------------|-------------|
| 1924 ... | 941         | 731         |
| 1925 ... | 1,131       | 1,021       |
| 1926 ... | 1,267       | 1,022       |
| 1927 ... | 1,206       | 942         |
| 1928 ... | 1,772       | 1,645       |
| 1929 ... | 1,690       | 1,516       |
| 1930 ... | 1,491       | 1,410       |
| 1931 ... | 1,512       | 1,464       |
| 1932 ... | 1,880       | 1,826       |
| 1933 ... | 2,295       | 2,311       |

The reasons for this increase are due to the developments which have taken place in the medical services of the country, both public and private, in recent years. They are particularly marked in this hospital which serves a large and densely populated industrial area, but similar factors are at work in other areas.

During the war and the years immediately following, the workings of the National Health Insurance Acts, together with the various Public Health Acts, as they affected hospital treatment, were not so apparent, but it is now quite clear that there is an increasing demand for hospital beds for all purposes, including maternity cases and children's diseases, particularly rheumatic cases, and other types of patients, not readily admitted to General Voluntary Hospitals, such as cases of pneumonia, nephritis, etc.

In addition a hospital of this character must at all times keep beds available for new admissions, and with the existing accommodation this has frequently presented serious difficulties. The notable increase in the number of admissions has a greater significance when the varied character of the types of case admitted is borne in mind. Many of these are not suitable for treatment in a general ward, or even in the side wards attached to each block.

In all large Public Assistance Institutions there is a real need for an isolation block in which doubtful and observation cases can be treated without detriment to other patients. The wooden building used for ten of the night staff of Darnton House could be well adapted for this purpose and would provide three male and three female isolation cubicles. The ten officers should properly be lodged in Darnton House.

Children's Wards.—The necessity for a block to accommodate healthy and convalescent children has already been noted.

With regard to children's wards in all institutions it is recommended that these should be placed on the ground floor, and converted where necessary into verandah wards, so that the maximum amount of sunlight and fresh air can be obtained.

The great benefits which follow the treatment of children in open verandah wards, as compared with closed wards, however good the cross ventilation, are well known, and the facility with which ground floor wards at the Lake Hospital can thus be converted adds weight to the recommendation.

Hospital Wards.—The wards generally are spacious and light with good cross ventilation. The beds and equipment are satisfactory, but much time and labour would be saved by the provision of a lavatory basin with hot and cold water in each of the ten wards. In the acute wards the provision of three cubicles on each side would be advantageous.

General Administration.—Apart from the recommendations already made, other deficiencies with regard to administration were noted during the progress of the survey. It is, however, essential that the welfare of the patients must always be the first consideration of the staff, and so far as the facilities available will allow this has been well ensured by the medical and nursing staff of the Lake Hospital. Undue pressure upon the hospital accommodation, however, renders difficult that careful administrative control which makes for full efficiency.

Additional staff is required not only to improve the technical services but also to allow more time for the Medical Superintendent and Matron to carry out their important administrative duties. There is not the least doubt that both these officers bear an undue weight of responsibility.

The Medical Superintendent is responsible for a large amount of clerical work in Lake Hospital and has the medical supervision of Darnton House, in which there are large numbers of sick and mental cases.

The additional clerical work demanded since these services were taken over by the County Council is considerable and as the hospital activities develop will further increase. It is recommended that a female clerical assistant to the Medical Superintendent be engaged, and that this officer shall also be responsible for the keeping of the medical records, this work being at present carried out by inmate labour.

The administrative duties of the matron will occupy her whole time, and this officer should be released from theatre and teaching duties.

The nursing staff should be increased by the appointment of a sister tutor who will also act as home sister, and a sister appointed for ward E who will also assist in theatre duties. Additional telephones are required for E ward, D ward, the children's ward, and the annexe ward in Darnton House.

Stores.—Ample store rooms are available in the basement of the hospital and it is recommended that the patients' clothing store be transferred from its present room to one with through ventilation.

Nurses' Home.—The accommodation provided for the nursing staff is insufficient and in September, 1933, the Public Assistance Committee authorised the preparation of a scheme for the extension of the Nurses' Home.

The nursing staff total 57 and, apart from the Matron, they are at present housed as follows :—

|                   |     |     |                                                 |     |     |    |
|-------------------|-----|-----|-------------------------------------------------|-----|-----|----|
| Nurses' Home      | ... | ... | Number of bedrooms in use                       | ... | ... | 31 |
|                   |     |     | (including two sitting rooms used as bedrooms). |     |     |    |
|                   |     |     | Number of occupants                             | ... | ... | 39 |
| Domestic Corridor | ... |     | Number of bedrooms in use                       | ... | ... | 8  |
|                   |     |     | Number of occupants                             | ... | ... | 17 |

It will be observed that there is a serious lack of proper sleeping accommodation. To make good the existing shortage and to release sitting rooms—now used as dormitories—29 more bedrooms are required. With regard to nursing home provision, however, three further considerations arise :—

(1) The present ratio of nursing staff to patients, in a hospital of this character, is too low, and as soon as accommodation is available the appointment of the following additional staff is recommended :—

- 1 Home sister and sister tutor.
- 1 Ward sister.
- 2 Staff nurses.
- 13 Probationer nurses.

(2) The establishment of special departments, including an isolation ward, would require the appointment of :—

- 1 Sister.
- 2 Staff nurses.
- 5 Probationer nurses.

(3) The facilities for training probationer nurses and pupil midwives would be increased by providing for :—

- 6 Probationer trainees.
- 4 Pupil midwives.

The hospital, fully developed, adequately staffed and providing facilities for training, would therefore have the following nursing staff :—

- 1 Matron.
- 1 Assistant matron.
- 1 Home sister and sister tutor.
- 1 Special department sister.
- 6 Ward sisters.
- 9 Staff nurses.
- 60 Probationer nurses.
- 6 Probationer trainees.
- 6 Pupil midwives.

Excluding the matron, who has already separate quarters, it will be seen that sleeping accommodation for a nursing staff of 90 may be required, of whom only 29 can be properly housed in the existing Nurses' Home.

It is therefore recommended that in the extension of the Nurses' Home provision should be made for 65 bedrooms, together with the appropriate sitting rooms, lecture and demonstration rooms.



## SUMMARY OF RECOMMENDATIONS.

## Darnton House.

- (1) The preparation of a scheme transferring infirm patients to ground floor wards.
- (2) Alterations to day rooms providing more light and ventilation.
- (3) Internal structural alterations to make use of "dead" space in the male mental wards and able-bodied house wards.
- (4) The provision of a children's block for healthy children over three years of age and for convalescent children from the hospital wards.
- (5) The addition of balconies to the annexe wards.
- (6) Improvements to the night nursery by the removal of a wooden structure and the provision of a verandah.
- (7) The enlargement and the modernisation of the mortuary.
- (8) The installation of modern drying apparatus in the laundry.

## Lake Hospital.

## New construction.—

- (1) The erection of a maternity block for 50 patients with provision for ante-natal and post-natal services.
- (2) Extension of the Nurses' Home.
- (3) The establishment of special departments.

## Structural alterations and equipment.—

- (1) The conversion of the children's ward into a verandah ward.
- (2) The conversion of the wooden building used as quarters for the night staff of Darnton House into an isolation ward.
- (3) Alterations to the hospital kitchen and provision of additional equipment.
- (4) The provision of lavatory basins in each of the ten hospital wards.
- (5) Erection of cubicles in the acute wards.
- (6) New lavatory basins and bowl sterilisers in the operation theatres.
- (7) Telephones to all hospital wards including the annexe ward in Darnton House.

## Staff.

## Medical.—

- (1) The appointment of a visiting physician and pathologist.
- (2) The appointment of a visiting obstetrician.
- (3) The appointment of a visiting anaesthetist.
- (4) The appointment of a visiting radiologist.
- (5) The appointment of a clerical assistant to the Medical Superintendent.

## Nursing and domestic.—

- (1) The appointment of adequate nursing staff.
- (2) The provision of increased training facilities.
- (3) The replacement of inmate labour in the hospital kitchen.

## HOSPITAL BEDS.

The following table shows in summary form the number of hospital beds available in the Public Assistance hospitals and infirmaries, and the purposes for which they are normally used :—

|                               | Male. | Female. | Total.       |
|-------------------------------|-------|---------|--------------|
| Acute medical ... ..          | 479   | 306     | 785          |
| Acute surgical ... ..         | 188   | 212     | 400          |
| Children (under 16 years) ... | ...   | ...     | 309          |
| Maternity beds ... ..         | ...   | ...     | 206          |
| Chronic cases ... ..          | 510   | 564     | 1,074        |
| Mental cases ... ..           | 460   | 659     | 1,119        |
|                               |       |         | <u>3,893</u> |

## SUMMARY OF THE CHIEF STRUCTURAL ALTERATIONS AND ADDITIONS.

During the year ended 31st March, 1934, the Lancashire Public Assistance Committee, on the recommendation of the County Medical Officer, authorised the following structural alterations and additions at the various Public Assistance institutions under their control :—

## Area No. 2.—Lancaster.

The building of two new hospital day rooms for the accommodation of men.

## Area No. 4.—Chorley.

- (a) The heating of the male and female padded rooms.
- (b) Installation of a new sewage system.

## Area No. 8.—Ormskirk.

(a) The conversion of the ground floor of the north wing into a complete maternity unit, consisting of :—

- (1) Lying-in ward.
- (2) Bathroom with sluice and lavatory.
- (3) Labour ward.
- (4) Doctors' consulting room and ante-natal clinic.
- (5) Kitchen and duty room.
- (6) Stores.

(b) The conversion of the sanatorium block into a children's hospital, providing the following accommodation :—

- (1) Two wards, each of ten beds, for male and female children.
- (2) A general day room.
- (3) Kitchen.
- (4) Lavatory provision for both sections.

(c) Alterations and extensions to the mortuary, including the installation of an automatic refrigerating plant.

## Area No. 11.—Jericho, Bury.

(a) Alterations and adaptations for use of female mental patients, including an airing court.

(b) The laying of composition flooring to the main corridor of the lower hospital.

## Area No. 12.—Whiston.

(a) The laying of a Terrazzo floor in the hall of the Nurses' Home.

(b) The decoration of the interior of the Nurses' Home.

(c) Alterations and extensions to the mortuary, including the installation of an automatic refrigerating plant.

(d) The adaptation of a portion of Block G for the accommodation of Resident Medical Officers.

## Area No. 14.—Green Lane.

(a) Complete overhaul and renewal, where necessary, of the sanitary fittings in the infirmary.

(b) Building of a new Nurses' Home.

## Area No. 14.—Park Hospital.

(a) Alterations to the children's block.

(b) Interior decoration of the main buildings.

(c) The installation of automatic stokers to the steam boilers.

## Area No. 16.—Lake Hospital.

Alteration of ward balconies.



SUBSCRIPTIONS TO VOLUNTARY ORGANISATIONS, ETC.—Local Authorities are authorised under Section 67 of the Poor Law Act, 1930, subject to the consent of the Minister of Health, to contribute by way of an annual subscription towards the support and maintenance of:—

- (a) Any public hospital or infirmary for the reception of sick or infirm persons; or
  - (b) Any institution for blind or deaf and dumb persons or for persons suffering from any permanent or natural infirmity; or any association for aiding such persons; or
  - (c) Any association for providing nurses or for aiding boys and girls in service; or
  - (d) Any society for the prevention of cruelty to children; or
  - (e) Any other institution which appears to the Council with the approval of the Minister to be calculated to render useful aid in the administration of relief of the poor;
- provided that the foregoing shall not authorise any subscription to any institution unless the Minister is satisfied that the persons receiving relief from the Council have, or could have, assistance therein in case of necessity.

The following statement sets out the subscriptions which are now being paid by the County Council to voluntary organisations, etc. :—

| HOSPITAL OR ASSOCIATION.                             | SUBSCRIPTION. |    |    |
|------------------------------------------------------|---------------|----|----|
|                                                      | £             | s. | d. |
| Accrington Victoria Hospital ... ..                  | 49            | 19 | 0  |
| Ashton-under-Lyne District Infirmary ... ..          | 80            | 18 | 0  |
| Barrow-in-Furness, North Lonsdale Hospital ... ..    | 5             | 4  | 0  |
| Blackburn and East Lancashire Royal Infirmary ... .. | 113           | 18 | 0  |
| Blackpool Victoria Hospital... ..                    | 12            | 9  | 0  |
| Bolton Infirmary ... ..                              | 48            | 9  | 0  |
| Bootle Borough Hospital ... ..                       | 17            | 2  | 0  |
| Burnley Victoria Hospital ... ..                     | 28            | 12 | 0  |
| Bury Infirmary ... ..                                | 29            | 8  | 0  |
| Chorley Hospital ... ..                              | 36            | 19 | 0  |
| Colne, Hartley Hospital ... ..                       | 30            | 19 | 0  |
| Eccles and Patricroft Hospital ... ..                | 27            | 2  | 0  |
| Flectwood Hospital ... ..                            | 23            | 14 | 0  |
| Lancaster Royal Infirmary ... ..                     | 88            | 16 | 0  |
| Leigh Infirmary ... ..                               | 68            | 12 | 0  |
| Liverpool Hospitals ... ..                           | 156           | 0  | 0  |
| Lytham Hospital ... ..                               | 22            | 12 | 0  |
| Manchester Royal Infirmary ... ..                    | 137           | 3  | 0  |
| „ St. Mary's Hospitals ... ..                        | 78            | 3  | 0  |
| „ Royal Children's Hospital ... ..                   | 38            | 7  | 0  |
| „ Ancoats Hospital ... ..                            | 26            | 16 | 0  |
| „ Hospital for Consumption ... ..                    | 6             | 9  | 0  |
| „ Royal Eye Hospital ... ..                          | 38            | 7  | 0  |
| „ Hospital for Incurables ... ..                     | 1             | 3  | 0  |
| „ Victoria Memorial Jewish Hospital ... ..           | 3             | 11 | 0  |
| „ Hospital for Skin Diseases ... ..                  | 7             | 13 | 0  |
| „ Northern Hospital ... ..                           | 12            | 10 | 0  |
| „ Ear Hospital ... ..                                | 11            | 6  | 0  |
| „ Babies' Hospital ... ..                            | 1             | 19 | 0  |
| „ Bethesda Home... ..                                | 0             | 16 | 0  |
| „ The Holt Radium Institute ... ..                   | 11            | 2  | 0  |
| Morecambe, Queen Victoria Hospital ... ..            | 26            | 1  | 0  |
| Nelson, Reedyford Hospital ... ..                    | 26            | 6  | 0  |
| Oldham Royal Infirmary ... ..                        | 51            | 5  | 0  |
| Ormskirk Cottage Hospital ... ..                     | 23            | 19 | 0  |
| Preston Royal Infirmary ... ..                       | 140           | 9  | 0  |
| Ramsbottom Cottage Hospital ... ..                   | 9             | 9  | 0  |
| Rochdale Infirmary ... ..                            | 27            | 8  | 0  |
| St. Anne's-on-Sea, War Memorial Hospital ... ..      | 18            | 9  | 0  |
| Salford Royal Hospital ... ..                        | 45            | 5  | 0  |
| Southport Infirmary ... ..                           | 6             | 6  | 0  |
| Stretford Memorial Hospital ... ..                   | 49            | 18 | 0  |
| Ulverston and District Cottage Hospital ... ..       | 36            | 17 | 0  |
| Warrington General Infirmary ... ..                  | 15            | 19 | 0  |
| Waterloo Cottage Hospital ... ..                     | 25            | 3  | 0  |
| Wigan Infirmary ... ..                               | 94            | 4  | 0  |
| Other hospitals ... ..                               | 104           | 0  | 0  |
|                                                      | 1,916         | 16 | 0  |
| Nursing Associations ... ..                          | 1,980         | 0  | 0  |
| Other Associations ... ..                            | 372           | 9  | 0  |
|                                                      | £4,269        | 5  | 0  |

## PUBLIC ASSISTANCE DOMICILIARY MEDICAL SERVICES.

The County Medical Officer presented the following report upon the duties, emoluments and appointment of District Medical Officers, and submitted, for the consideration of the County Public Assistance Committee, a scheme which would ensure uniformity of the conditions in this service.

The effect of the National Health Insurance Act, 1932, by which numbers of insured persons ceased to be entitled to medical benefit as from the 31st December, 1933, has been carefully considered in formulating this scheme.

## Memorandum of the County Medical Officer.

## 1.—The duties of District Medical Officers.

In the Administrative County of Lancashire there are 130 District Medical Officers serving in the various relief districts. The duties of these officers are set out in the Public Assistance Order, 1930, of which the following is an extract :—

“ The District Medical Officer shall—

- (1) attend duly and punctually upon all poor persons within his district requiring medical attendance, and, subject to the terms of his appointment, supply the requisite medicines to such persons, when lawfully required to do so by a written order of the Council, or of a Relieving Officer, or by the exhibition to him of a medical relief ticket by or on behalf of a poor person on the permanent medical relief list.
- (2) inform the Relieving Officer forthwith of the name and address of any poor person whom he may have attended without an order ;
- (3) keep a record, termed the District Medical Officer's relief book, in the Form 11. in the First Schedule, of his attendances upon poor persons under his care, and submit it to the appropriate Committee at every meeting ;
- (4) permit any Relieving Officer to inspect this book at the end of every half-year ;
- (5) give to the Council, when required by them, any reasonable information respecting the case of any poor person who is or has been under his care, and certifying in writing, on the request of the Council, or of a Relieving Officer, or of the poor person on whom he is attending, the sickness of the poor person, or other cause of his attendance on him ;
- (6) on the admission to an institution or hospital of any poor person under his care, supply the Medical Officer thereof with such information as may be in his possession as to the medical history of the case ;
- (7) furnish to the Medical Officer of Health for his district such information as the Minister or the Council may from time to time direct with respect to cases of sickness or death amongst poor persons under his care ;
- (8) name to the Council some duly qualified medical practitioner who will, in the case of his absence or other hindrance to his personal attendance, act in his place ; and
- (9) in making entries in books, record papers or other records, employ the terms used in the volume prepared by a Joint Committee appointed by the Royal College of Physicians of London and entitled “ The Nomenclature of Diseases.”

Attention is drawn to paragraph (5) which is widely drawn and may reasonably be taken to include the examination of an applicant for public assistance who states that he is unable to work on account of sickness. A further point is that legislation now pending will place the able-bodied unemployed of all classes under the administration of an Unemployment Assistance Board, though as yet no indication has been given as to how unemployed persons who allege that they are unfit for particular branches of work on account of infirmity, etc., are to be medically examined. The question of “ fitness or otherwise ” for any specific occupation has always presented serious difficulties from the medical point of view, and if questions of this nature are submitted to the District Medical Officers it will add considerably to their responsibilities.

Apart from this question, however, it may be observed that the duties of District Medical Officers cover a large field ; medical relief, including both the provisions of medical and surgical treatment, and the granting of medical extras, being linked up with the hospital and nursing services of the County. It is necessary, therefore, that the District Medical Officer, serving as he does that portion of the community which is most in need of medical assistance, should be fully competent professionally, and as a public servant, entrusted with wide discretionary powers, have full knowledge of the several forms of public assistance which are available so that he may help those who require his services to their best advantage.



## 2.—The emoluments of District Medical Officers.

There is little doubt that the system by which these Officers are paid is in need of revision, quite apart from the new situation which has arisen owing to the National Health Insurance Act, 1932.

The salaries now received were fixed by the late Boards of Guardians and were apportioned according to the needs and conditions obtaining in the different areas. In many of these areas alterations in population have taken place and, to a much greater degree, alterations in the economic conditions.

With regard to the former there has been in some areas an infiltration of Country Districts from the neighbouring County Boroughs, and this process is likely to continue, whilst as regards economic conditions the state of the cotton industry, and the closing down of mines, are chiefly responsible for the loss of prosperity in districts where these are the staple industries.

Formerly in the majority of such areas the number of persons who sought medical relief was comparatively small and mainly limited to the aged and infirm, or persons who from various causes were almost unemployable.

The changes mentioned have resulted both in an increased number and altered type of applicant for this form of relief, a type similar in all respects to the "insured" classes of the community.

The future of districts which are suffering severely from the depressed economic conditions is uncertain, and it may be several years before the general welfare of the more industrialised portions of the Administrative County is materially improved.

It is, therefore, advisable that the salaries of District Medical Officers should be revised and placed upon a basis which will be in accordance with the nature of the work involved.

## 3.—The appointment of District Medical Officers.

The majority of medical men now holding these posts were appointed by the late Boards of Guardians and are thus "transferred officers," as defined by the Local Government Act, 1929.

They are also "senior officers" under the Public Assistance Order, 1930, and the duty of appointment is laid upon the County Council and cannot be delegated except by special permission of the Minister of Health.

Where vacancies have occurred, either by death or resignation, an advertisement has been issued in the local papers, and the post filled from among the applicants, according to the recommendation of the Appointing Committee, which consists of the Chairman of the Public Assistance Committee, the Chairman and Vice-Chairman of the General Purposes, Finance and Institutions Sub-Committee of the Public Assistance Committee, together with the three County Council representatives on the Local Guardians Committee in whose area the vacancy arises.

Since the "appointed day," 1st April, 1930, 40 District Medical Officers have been thus appointed, but no alterations in the conditions of service, or remuneration, have been made.

The County Medical Officer is satisfied that the service is staffed by a reliable and conscientious type of medical practitioner, and the fact that no complaints have been received suggests that the services rendered have been, on the whole, satisfactory.

## 4.—The scheme suggested for the Promotion of Uniformity in the Service.

An analysis of the figures for the three years ended 31st March, 1933, shows that the amounts paid to the District Medical Officers, averaged in terms of home visits or consultations, are not uniform. This is due in large measure to the widely different characters of the relief districts, some of which are small densely populated industrial areas, whilst others are sparsely populated but extensive rural areas.

The differences both as regards density of population and the nature of the occupations followed in these areas account for the varying sickness rates. It is clear, therefore, that the number of poor people in any particular area is not always a true index of the amount of work falling upon the District Medical Officer for that area. Another factor which formerly was taken into consideration in fixing salaries was the difficulty of giving service in the more rural districts where patients were often widely separated. The improvements in roads and transport facilities generally, have diminished the importance of this factor, and examination of the salaries paid to the District Medical Officers in such areas indicates that allowance has been made for variations of this character. These are the chief difficulties which need to be overcome in order to arrive at a uniform and adequate system of remuneration for the District Medical Officers.

To establish the principle of the scheme two figures were ascertained—

- (1) The number of visits and consultations made by District Medical Officers during the year 1st April, 1932, to 31st March, 1933.
- (2) The number of persons applying for and granted medical relief during the same year.

Examination of these two figures showed that the average number of visits or consultations made per applicant was five.

Opinions will vary as to what may be considered a reasonable salary for the work carried out by District Medical Officers. It is suggested, however, that taking as a basis the average number of visits and consultations made per case in the whole of the districts, a sum of 2s. per visit or consultation would be generally accepted. This is equal to the sum of 10s. per applicant, and this figure has been used in computing the revised salaries.

The year ended 31st March, 1933, has been taken as an example, and using the average figure, 91 District Medical Officers are paid at a rate equal to, or higher than, the suggested 10s. per applicant, and under this scheme the salaries of these officers will not be modified for the present. With regard to the remaining 39 District Medical Officers their salaries would have been increased, the total increase amounting to £2,103.

#### 5.—The suggested method for Calculating Salaries in Future Years.

At the end of each financial year the number of persons who applied for, and were given, medical relief by the District Medical Officers will be ascertained. The salaries of those District Medical Officers who are not receiving the equivalent of 10s. per applicant will then be adjusted to this amount. In the case of those District Medical Officers who are already receiving a salary which provides this amount per applicant no modification will be made until possibly in some future years the salary falls below this scale, when it will then be adjusted.

The operation of the National Health Insurance Act, 1932, has created a situation which cannot as yet be accurately measured and will tend to cause a further increase in the cost of these services. Estimates of the numbers of insured persons who will cease to be entitled to medical benefit vary. In some districts the number may be considerable, whilst in others the Act will have little effect in this direction. Until more accurate information is obtained there is no method of estimating what the increased cost will be in future years. Under the scheme, however, the payments are made on an equitable basis for services rendered, and there is no evidence that the cost will be unreasonably high, or that the service organised as at present will be unable to deal with all applicants for medical relief in a satisfactory manner.

To ensure a further degree of uniformity it is recommended that medicines, etc., be provided by the "Script" method, and that arrangements be entered into with the National Health Insurance Committee Costing Bureau for such prescriptions to be costed, the cost of medicines, etc., to be borne by the County Council, and not to be included in the salaries of the District Medical Officers.

The County Medical Officer considers that this alteration will effect a desirable improvement in the efficiency of the service.

It is estimated that the cost of this improvement for the year 1932–1933 would have been approximately £1,400.

The County Public Assistance Committee decided that the scheme proposed in the foregoing memorandum be adopted, and put into operation for a period of three years as from the 1st April, 1934. During this period it is proposed to keep further records of the nature and amount of work done, in order that at the end of the three years consideration may be given to any inequalities which may have arisen.

#### TREATMENT OF CANCER CASES UNDER THE SCHEME OF THE LANCASHIRE PUBLIC ASSISTANCE COMMITTEE.

In July, 1933, the Lancashire Public Assistance Committee authorised the County Medical Officer to enter into an Agreement with the Christie Hospital and Holt Radium Institute, Manchester, for the treatment of cases of cancer.

The following are the regulations in connection with the administration of the scheme. These regulations have been issued to Public Assistance Institution Medical Officers and also to District Medical Officers.

1.—Arrangements have been made whereby patients from the undermentioned Public Assistance hospitals, infirmaries, or institutions may be referred for treatment to the Christie Hospital and Holt Radium Institute, Wilmslow Road, Withington, Manchester :—

- Group 1. Ulverston Public Assistance Institution.
- Lancaster Public Assistance Institution.
- Kirkham Public Assistance Institution.
- Garstang Public Assistance Institution.
- Ribchester Public Assistance Institution.
- Whiston Public Assistance Institution, Prescot.



Group 2. Chorley Public Assistance Institution.

Coplow View Public Assistance Institution, Clitheroe.  
 Moorlands Public Assistance Institution, Rawtenstall.  
 Ormskirk Public Assistance Institution.  
 Jericho Public Assistance Institution, Bury.  
 Leigh Public Assistance Institution.  
 Barton-upon-Irwell Public Assistance Institution.  
 Park Hospital, Moorside Road, Flixton, Nr. Manchester.  
 Ashton-under-Lyne Public Assistance Institution.

2. The following are the terms which have been agreed to :—

- (a) Maintenance of patients in the Christie Hospital—£4 4s. 0d. per week.
- (b) Examination and treatment by radium or by deep X-ray therapy—£10 10s. 0d. per case treated to a conclusion.

3.—Method of sending patients from Public Assistance Institutions, Hospitals or Infirmarys.—If the Medical Officer of one of the above Public Assistance institutions, hospitals or infirmaries desires to refer a patient for treatment to the Christie Hospital and Holt Radium Institute he should, in the first instance, make out in triplicate a form P.A.(M).9. One copy of the form should be retained in the book, one copy should be forwarded to the County Medical Officer, Public Assistance (Hospital and Medical) Department, County Offices, Preston, and one copy should be handed to the patient when he or she is proceeding to the Radium Institute. In the case of hospitals under Group 1, a short medical history of the patient, stating particularly the situation and extent of the lesion, should be attached to the copy of form P.A.(M).9. sent to the County Medical Officer.

4.—Patients referred for treatment by District Medical Officers.—If a District Medical Officer has a patient on his medical relief list whom he desires to refer for treatment to the Christie Hospital and Holt Radium Institute he should, in the first instance, make out in duplicate a form P.A.(M).12. One copy should be retained by him and one copy should be forwarded to the County Medical Officer, Public Assistance (Hospital and Medical) Department, County Offices, Preston. On receipt of this form the County Medical Officer will issue the necessary form P.A.(M).9.

5.—Attendance at the Christie Hospital and Holt Radium Institute.—Medical Officers of Public Assistance institutions, hospitals or infirmaries and District Medical Officers must not make arrangements for a patient to proceed to the Christie Hospital and Holt Radium Institute until requested to do so by the County Medical Officer.

When the County Medical Officer receives notification of a patient requiring treatment he will proceed as follows :—

- (a) In the case of hospitals under Group 1 he will forward the covering letter above mentioned to the Director of the Radium Institute, who will give him a date on which the patient can be examined at the Institute with a view to immediate admission.
- (b) In the case of hospitals under Group 2 the County Medical Officer will instruct the Medical Officers of Public Assistance institutions, hospitals or infirmaries and District Medical Officers to send the patient to the Holt Radium Institute for examination on any morning, except Saturday and Sunday. The patient will return to the institution and the County Medical Officer will subsequently be notified of the proposed date of admission of the patient, which date he shall communicate to the Medical Officer concerned.

The Medical Officer concerned should make arrangements through the Clerk to the Guardians' Committee for the patient to proceed to the Christie Hospital and Holt Radium Institute at the time and date arranged, and the County Medical Officer will, if necessary, issue a railway voucher. Patients should, in the first instance, report at the time and date arranged to the out-patient department of the Holt Radium Institute.

N.B.—Buses proceeding to the Holt Radium Institute leave Piccadilly (Parker Street Bus Station, Gatley Stand), Manchester, as follows :—

Every fifteen minutes—Gatley Bus.

Fare—5d. single fare, 9d. return.

6.—Treatment.—When patients first attend the out-patient department of the Holt Radium Institute they will be seen by the Medical Director, who will decide the form of treatment necessary.

- (a) Patients from hospitals under Group 1 for whom radium treatment is advised will be admitted immediately.
- (b) Patients from hospitals under Group 2 for whom radium treatment is advised will be listed for admission at a later date.
- (c) Patients who are not considered suitable for radium treatment, but require surgical treatment only, will be referred back to the County Medical Officer in order that suitable arrangements may be made for their treatment.

7.—Discharge of patients.—The Holt Radium Institute will inform the County Medical Officer of the discharge of patients. Any cases where special treatment or special removal is required a few days' notice will be given to the County Medical Officer.

8.—Re-examination.—The Institute will inform the County Medical Officer regarding the dates of re-examination of all cases treated at the Institute, and the County Council will afford facilities for the attendance of such cases.

9.—Responsibility for cost of treatment.—The Lancashire Public Assistance Committee will not undertake financial responsibility for any case treated at the Holt Radium Institute unless form P.A.(M).9. is presented by the patient at the first visit.

10.—Records and accounts.—The Institute will keep full and proper records of treatment and will forward to the County Medical Officer at the end of each month particulars with regard to cases treated during the month (form P.A.(M).10.).

Accounts, on form P.A.(M).11. will be submitted by the Holt Radium Institute to the County Medical Officer at the end of each month. The full name of the patient and the number of the form P.A.(M).9. authorising attendance at the Institute should be shown on the account together with the actual date of admission and discharge.

Arrangements were also made for cases chargeable to the Lancashire County Council and resident in institutions vested in other Authorities to receive treatment at the Christie Hospital and Holt Radium Institute on the terms set out above.

The Lancashire Public Assistance Committee were of the opinion that the facilities available for "county" cases for the treatment of cancer, should also be available for cases chargeable to other Authorities and resident in County Public Assistance institutions and hospitals under "user" agreements. Arrangements were accordingly made for the treatment of these cases, and the responsible Authorities agreed to pay the cost of maintenance and treatment on the same scale as that laid down for "county" cases.

Since the inauguration of the scheme in November, 1933, up to the 31st March, 1934, the Medical Officers of County Public Assistance Institutions have referred 19 cases to the County Medical Officer as being suitable for treatment at the Christie Hospital and Holt Radium Institute, 3 "county" cases resident in the Boundary Park Municipal Hospital, Oldham, have been similarly referred by the Medical Officer of that institution, and one case has been referred from the tuberculosis dispensary at Wigan. During this same period 29 attendances for re-examination have been made at the Christie Hospital and Holt Radium Institute.

**TUBERCULOSIS.**—The Lancashire County Council, through the Tuberculosis Committee, has provided a complete scheme for the treatment of tuberculosis for the inhabitants of the Administrative County area.

The following statement is kindly supplied by Dr. G. Lissant Cox, the Central Tuberculosis Officer :—

**Sanatoria and Hospitals.**—Number of beds in sanatoria and hospitals occupied by County patients suffering from pulmonary and non-pulmonary tuberculosis, July, 1934 :—

|                                                                              | Pulmonary Tuberculosis. |           | Non-Pulmonary Tuberculosis. |           | Total. |
|------------------------------------------------------------------------------|-------------------------|-----------|-----------------------------|-----------|--------|
|                                                                              | Adults.                 | Children. | Adults.                     | Children. |        |
| Sanatoria for early and intermediate cases ...                               | 317                     | 30        | ...                         | 3         | 350    |
| Training Colonies ... ..                                                     | 4                       | ...       | 6                           | ...       | 10     |
| Pulmonary Hospitals for advanced cases requiring isolation or nursing ... .. | 269                     | 4         | ...                         | ...       | 273    |
| General Hospitals and Infirmaries for surgical cases                         | 1                       | ...       | 2                           | 1         | 4      |
| Special Hospitals for surgical cases ... ..                                  | 27                      | 3         | 92                          | 144       | 266    |
| Skin Hospitals ... ..                                                        | ...                     | ...       | 2                           | ...       | 2      |
| Sanatoria and Hospitals taking observation cases                             | 5                       | 5         | 4                           | 7         | 21     |
|                                                                              | 623                     | 42        | 106                         | 155       | 926    |
|                                                                              | 665                     |           | 261                         |           |        |



**Tuberculosis Dispensaries.**—Twenty-four dispensaries have been established by the County Tuberculosis Committee, the dispensary areas covering the whole of the Administrative County. Details as to the situation of the premises, the medical and nursing staff, days and hours of sessions, etc., are given in Dr. Cox's Annual Report.

**MATERNITY BEDS.**—In the section of this report on Maternity and Child Welfare, reference is made on pages 229 and 234 to the facilities provided for maternity cases in the County Council scheme, and by the Local Authorities who themselves undertake maternity and child welfare work.

**HOSPITALS FOR CHILDREN.**—The district reports state that hospital provision for children is available at Accrington (B), Ashton-under-Lyne (B), Chorley (B), Colne (B), Eccles (B), Fleetwood (B), Lancaster (B), Leigh (B), Lytham Saint Anne's (B), Morecambe and Heysham (B), Ormskirk, Ramsbottom, and Stretford (B). Other districts report that children are sent to general hospitals elsewhere, or to Public Institutions. The County Council arrangements for children are referred to on pages 67 and 234.

**Institutional Provision for Unmarried Mothers, Illegitimate Infants, and Homeless Children.**—Institutional accommodation for these classes is stated to be available at Eccles (B) (Ennismore House), Great Crosby (Nazareth House), Heywood (B) (Simpson Hill), Kirkham (Cottage Homes), Stretford (B) (Galloway Homes), Tottington (Holly Mount), Waterloo-with-Seaforth (St. Mary's Home), and Blackburn (R) (Wilshire). Accommodation for these classes of cases is available at all the Public Assistance Institutions.

**Maternity and Child Welfare Centres.**—A list of the maternity and child welfare centres provided (a) by the County Council, and (b) by Local Sanitary Authorities, with the day and time they are open, is given on pages 223 and 231. Details as to the child welfare work carried out by the County Council Health Visitors are given on page 222.

**Day Nurseries.**—Day nurseries have been provided at Leyland (by the County Council) and at Morecambe and Heysham (B) (managed voluntarily).

**School Clinics, &c.**—(A) BY COUNTY AUTHORITY ; (B) BY LOCAL AUTHORITIES.—

(A). **COUNTY SCHOOL CLINICS, ETC.**—The development of medical treatment has progressed still further, and since the last report additional Clinics have been opened at Great Crosby, for the treatment of minor ailments, and at Longridge for the treatment of minor ailments, defective vision and dental defects.

The following is a list of the School Clinics open for treatment at the time of going to press, the kind of work which is undertaken in each being shown :—

| Township.             | Days and Times of Opening. |             |             | Nature of work undertaken. | Remarks.                                             |
|-----------------------|----------------------------|-------------|-------------|----------------------------|------------------------------------------------------|
| Ashton-in-Makerfield  | ... Mon.                   | ...         | a.m. & p.m. | ... Dental                 | ... Surgeon attends first Monday in each month only. |
|                       |                            |             | a.m.        | ... Orthopædie             |                                                      |
|                       | Tues.                      | ...         | a.m.        | ... Minor ailments         |                                                      |
|                       | Wed.                       | ...         | a.m.        | ... Ophthalmic             |                                                      |
|                       | Thurs.                     | ...         | p.m.        | ... Minor ailments         |                                                      |
|                       |                            |             | a.m. & p.m. | ... Dental                 | ... Nurse only. Re-dressings.                        |
| Fri.                  | ...                        | a.m. & p.m. | ... Dental  |                            |                                                      |
| Ashton-under-Lyne (a) | ... Fri.                   | ...         | a.m.        | ... Orthopædie             | ... Surgeon attends first Friday in each month only. |
| Ashton-under-Lyne (b) | ... Mon.                   | }           | p.m.        | ... Artificial light       | ... Doctor attends Tuesday and Friday only.          |
|                       | Tues.                      |             |             |                            |                                                      |
|                       | Wed.                       |             |             |                            |                                                      |
|                       | Thurs.                     |             |             |                            |                                                      |
|                       | Fri.                       |             |             |                            |                                                      |
| Atherton              | ... Mon.                   | ...         | p.m.        | ... Artificial light       | ... Nurse only. Re-dressings.                        |
|                       |                            |             | p.m.        | ... Minor ailments         |                                                      |
|                       | Tues.                      | ...         | a.m. & p.m. | ... Dental                 |                                                      |
|                       | Thurs.                     | ...         | a.m.        | ... Minor ailments         |                                                      |
|                       |                            |             | a.m.        | ... Artificial light       |                                                      |
|                       | Fri.                       | ...         | a.m. & p.m. | ... Dental                 |                                                      |

| Township.         | Days and Times of Opening. |                                                                                                          |             | Nature of work undertaken. | Remarks.                                                            |
|-------------------|----------------------------|----------------------------------------------------------------------------------------------------------|-------------|----------------------------|---------------------------------------------------------------------|
| Audenshaw         | ... Mon.                   | ...                                                                                                      | a.m.        | ... Minor ailments         |                                                                     |
|                   | Tues.                      |                                                                                                          | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Wed.                       | ...                                                                                                      | a.m.        | ... Dental                 |                                                                     |
|                   |                            |                                                                                                          | p.m.        | ... Ophthalmic             | ... Open alternate weeks only.                                      |
|                   | Thurs.                     | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   | Fri.                       | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
| Burnley           | ... Thurs.                 | ...                                                                                                      | p.m.        | ... Orthopædic             | ... Surgeon attends second and fourth Thursdays in each month only. |
| Carnforth         | ... Mon.                   | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Open alternate weeks only.                                      |
|                   |                            |                                                                                                          | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Wed.                       | ...                                                                                                      | a.m.        | ... Ophthalmic             | ... Open first Wednesday in each month only.                        |
|                   | Fri.                       | ...                                                                                                      | p.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
| Chadderton        | ... Mon.                   | ...                                                                                                      | a.m. & p.m. | ... Orthopædic             | ... Nurse only.                                                     |
|                   | Fri.                       | ...                                                                                                      | p.m.        | ... Orthopædic             | ... Surgeon attends first Friday in each month only.                |
| Chorley (a)       | ... Mon.                   | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   | Tues.                      | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Wed.                       | ...                                                                                                      | a.m.        | ... Ophthalmic             | ... Open alternate weeks only.                                      |
|                   | Thurs.                     | ...                                                                                                      | a.m.        | ... Minor ailments         |                                                                     |
|                   | Fri.                       | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
| Chorley (b)       | ... Mon.                   | <div> <div> <div>2—3 p.m. Boys</div> <div>3—4 p.m. Girls</div> </div> <div>Artificial light</div> </div> |             |                            |                                                                     |
|                   | Wed.                       |                                                                                                          |             |                            |                                                                     |
|                   | Fri.                       |                                                                                                          |             |                            |                                                                     |
| Crompton          | ... Mon.                   | ...                                                                                                      | a.m.        | ... Ophthalmic             | ... Open alternate weeks only.                                      |
|                   |                            |                                                                                                          | a.m.        | ... Dental                 |                                                                     |
|                   | Tues.                      | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   | Thurs.                     | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Fri.                       | ...                                                                                                      | a.m.        | ... Minor ailments         |                                                                     |
| Dalton-in-Furness | ... Mon.                   | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   | Tues.                      | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Wed.                       | ...                                                                                                      | a.m.        | ... Ophthalmic             | ... Open alternate weeks only.                                      |
|                   | Thurs.                     | ...                                                                                                      | a.m.        | ... Dental                 |                                                                     |
|                   |                            |                                                                                                          | a.m.        | ... Minor ailments         |                                                                     |
| Darwen            | ... Wed.                   | ...                                                                                                      | a.m. & p.m. | ... Orthopædic             | ... Surgeon attends third Wednesday in each month only.             |
| Davyhulme         | ... Mon.                   | ...                                                                                                      | a.m.        | ... Minor ailments         |                                                                     |
|                   | Tues.                      | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
|                   |                            |                                                                                                          | p.m.        | ... Ophthalmic             | ... Open alternate weeks only.                                      |
|                   | Thurs.                     | ...                                                                                                      | p.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   | Fri.                       | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
| Droylsden         | ... Mon.                   | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   |                            |                                                                                                          | p.m.        | ... Dental                 |                                                                     |
|                   | Wed.                       | ...                                                                                                      | p.m.        | ... Dental                 |                                                                     |
|                   | Thurs.                     | ...                                                                                                      | a.m.        | ... Minor ailments         |                                                                     |
|                   | Fri.                       | ...                                                                                                      | p.m.        | ... Ophthalmic             | ... Open monthly.                                                   |
| Earlestown        | ... Mon.                   | ...                                                                                                      | a.m.        | ... Ophthalmic             | ... Alternate weeks only.                                           |
|                   |                            |                                                                                                          | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Tues.                      | ...                                                                                                      | a.m. & p.m. | ... Dental                 |                                                                     |
|                   |                            |                                                                                                          | a.m.        | ... Orthopædic             | ... Surgeon attends alternate Tuesdays in each month.               |
|                   | Wed.                       | ...                                                                                                      | a.m.        | ... Minor ailments         | ... Nurse only. Re-dressings.                                       |
|                   |                            |                                                                                                          | a.m. & p.m. | ... Dental                 |                                                                     |
|                   | Fri.                       | ...                                                                                                      | a.m.        | ... Minor ailments         |                                                                     |



| Township.    | Days and Times of Opening. |        |     | Nature of work undertaken. | Remarks.                                                                                                           |
|--------------|----------------------------|--------|-----|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| Fleetwood    | ...                        | Mon.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            | Tues.  | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            |        |     | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            | Wed.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            | Thurs. | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            |        |     | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            | Fri.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            |        |     | a.m. & p.m.                | ... Orthopædic                                                                                                     |
|              |                            |        |     | a.m.                       | ... Ophthalmic                                                                                                     |
| Great Crosby | ...                        | Tues.  | ... | a.m.                       | ... Dental                                                                                                         |
|              |                            | Thurs. | ... | a.m.                       | ... Dental                                                                                                         |
|              |                            | Fri.   | ... | a.m.                       | ... Dental                                                                                                         |
|              |                            |        |     | a.m.                       | ... Minor ailments                                                                                                 |
| Haydock      | ...                        | Mon.   | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            |        |     | p.m.                       | ... Orthopædic                                                                                                     |
|              |                            | Tues.  | ... | a.m.                       | ... Orthopædic                                                                                                     |
|              |                            |        |     |                            | ... Nurse only. Re-dressings.                                                                                      |
|              |                            |        |     |                            | ... Nurse only. Alternate weeks.                                                                                   |
|              |                            |        |     |                            | ... Surgeon attends alternate Tuesdays in each month.                                                              |
|              |                            | Wed.   | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            | Thurs. | ... | a.m.                       | ... Ophthalmic                                                                                                     |
|              |                            |        |     | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            | Fri.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
| Horwich      | ...                        | Mon.   | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            |        |     | p.m.                       | ... Dental                                                                                                         |
|              |                            | Tues.  | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            |        |     | a.m.                       | ... Artificial light                                                                                               |
|              |                            | Wed.   | ... | a.m.                       | ... Ophthalmic                                                                                                     |
|              |                            |        |     | a.m.                       | ... Orthopædic                                                                                                     |
|              |                            |        |     |                            | ... Open monthly.                                                                                                  |
|              |                            |        |     |                            | ... Surgeon attends first Wednesday in each month only. Nurse attends first and fourth Wednesdays.                 |
|              |                            | Fri.   | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            |        |     | p.m.                       | ... Dental                                                                                                         |
|              |                            | Sat.   | ... | a.m.                       | ... Artificial light                                                                                               |
| Irlam        | ...                        | Mon.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            | Tues.  | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            | Wed.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            | Thurs. | ... | a.m.                       | ... Ophthalmic                                                                                                     |
|              |                            |        |     | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            |        |     | p.m.                       | ... Orthopædic                                                                                                     |
|              |                            |        |     |                            | ... Open alternate weeks only.                                                                                     |
|              |                            |        |     |                            | ... Surgeon attends third Thursday in each month only.                                                             |
|              |                            | Fri.   | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            |        |     |                            | ... Nurse only. Re-dressings.                                                                                      |
| Kearsley     | ...                        | Mon.   | ... | a.m.                       | ... Ophthalmic                                                                                                     |
|              |                            |        |     | p.m.                       | ... Minor ailments                                                                                                 |
|              |                            | Tues.  | ... | a.m. & p.m.                | ... Dental                                                                                                         |
|              |                            |        |     | a.m.                       | ... Orthopædic                                                                                                     |
|              |                            | Wed.   | ... | p.m.                       | ... Orthopædic                                                                                                     |
|              |                            |        |     |                            | ... Nurse only. Re-dressings.                                                                                      |
|              |                            |        |     |                            | ... Nurse only.                                                                                                    |
|              |                            |        |     |                            | ... Surgeon attends first Wednesday in each month only.                                                            |
|              |                            | Thurs. | ... | a.m.                       | ... Minor ailments                                                                                                 |
|              |                            | Fri.   | ... | a.m. & p.m.                | ... Dental                                                                                                         |
| Laneaster    | ...                        | Tues.  | ... | a.m.                       | ... Orthopædic                                                                                                     |
|              |                            |        |     |                            | ... Surgeon attends third Tuesday, alternate months. Nurse attends alternate Tuesdays.                             |
|              |                            | Thurs. | ... | a.m.                       | ... Ophthalmic                                                                                                     |
|              |                            |        |     |                            | ... Open by arrangement when sufficient number of cases for treatment. Day changed to Monday during summer months. |

| Township.     | Days and Times of Opening. |     |              | Nature of work undertaken.           | Remarks.                                                                                     |
|---------------|----------------------------|-----|--------------|--------------------------------------|----------------------------------------------------------------------------------------------|
| Leyland ...   | ... Mon.                   | ... | a.m.<br>p.m. | ... Minor ailments<br>... Orthopædic | ... Nurse only. Re-dressings.<br>... Surgeon attends first Monday in each month only.        |
|               | Tues.                      | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Wed.                       | ... | a.m.         | ... Ophthalmic                       |                                                                                              |
|               | Thurs.                     | ... | a.m.         | ... Minor ailments                   |                                                                                              |
|               | Fri.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               |                            |     |              |                                      |                                                                                              |
| Litherland    | ... Mon.                   | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Tues.                      | ... | a.m.<br>p.m. | ... Minor ailments<br>... Dental     |                                                                                              |
|               | Wed.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Thurs.                     | ... | a.m.         | ... Ophthalmic                       |                                                                                              |
|               |                            |     | a.m.         | ... Orthopædic                       | ... Surgeon attends second Thursday in each month only.                                      |
|               | Fri.                       | ... | p.m.<br>a.m. | ... Dental<br>... Minor ailments     | ... Nurse only. Re-dressings.                                                                |
| Littleborough | ... Mon.                   | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Tues.                      | ... | a.m.         | ... Minor ailments                   | ... Nurse only. Re-dressings.                                                                |
|               | Wed.                       | ... | a.m.         | ... Ophthalmic                       | ... Open alternate weeks only.                                                               |
|               | Thurs.                     | ... | a.m.         | ... Minor ailments                   |                                                                                              |
| Longridge     | ... Mon.                   | ... | a.m.         | ... Minor ailments                   |                                                                                              |
|               |                            |     | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Wed.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               |                            |     | a.m.         | ... Ophthalmic                       | ... Open alternate weeks only.                                                               |
| Milnrow ...   | ... Tues.                  | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               |                            |     | a.m.         | ... Minor ailments                   |                                                                                              |
|               | Fri.                       | ... | a.m.         | ... Minor ailments                   | ... Nurse only. Re-dressings.                                                                |
| Nelson ...    | ... Fri.                   | ... | p.m.         | ... Orthopædic                       | ... Surgeon attends third Friday (a.m.) in each month only.                                  |
| Ormskirk (a)  | ... Mon.                   | ... | a.m.         | ... Minor ailments                   | ... Medical Officer attends alternate weeks only. (Re-dressings by Hospital staff each day). |
|               | Fri.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
| Ormskirk (b)  | ... Tues.                  | ... | p.m.         | ... Orthopædic                       | ... Nurse only, except second Tuesday in each month.                                         |
|               | Fri.                       | ... | a.m.         | ... Orthopædic                       | ... Surgeon attends first Friday in each month only.                                         |
| Orrell ...    | ... Tues.                  | ... | a.m.         | ... Minor ailments                   | ... Nurse only. Re-dressings.                                                                |
|               |                            |     | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Wed.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Thurs.                     | ... | a.m.         | ... Minor ailments                   |                                                                                              |
|               | Fri.                       | ... | p.m.         | ... Ophthalmic                       | ... Open alternate weeks only.                                                               |
| Oswaldtwistle | ... Mon.                   | ... | a.m.         | ... Minor ailments                   | ... Nurse only. Re-dressings.                                                                |
|               | Tues.                      | ... | a.m.         | ... Ophthalmic                       | ... Open alternate weeks only.                                                               |
|               | Wed.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |
|               | Thurs.                     | ... | a.m.         | ... Minor ailments                   |                                                                                              |
|               | Fri.                       | ... | a.m. & p.m.  | ... Dental                           |                                                                                              |



| Township.    | Days and Times of Opening. |     |                     | Nature of work undertaken.       | Remarks.                                                             |
|--------------|----------------------------|-----|---------------------|----------------------------------|----------------------------------------------------------------------|
| Padiham      | ... Mon.                   | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Tues.                      | ... | a.m.                | ... Minor ailments               |                                                                      |
|              | Wed.                       | ... | a.m. & p.m.<br>p.m. | ... Dental<br>... Ophthalmic     | ... Open every third week.                                           |
|              | Thurs.                     | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Fri.                       | ... | a.m.                | ... Minor ailments               | ... Nurse only. Re-dressings.                                        |
| Prescot ...  | ... Mon.                   | ... | a.m. & p.m.<br>a.m. | ... Dental<br>... Minor ailments | ... Nurse only. Re-dressings.                                        |
|              | Tues.                      | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Wed.                       | ... | a.m. & p.m.<br>p.m. | ... Dental<br>... Ophthalmic     | ... Open first and last Wednesday in each month only.                |
|              | Thurs.                     | ... | a.m.<br>a.m. & p.m. | ... Minor ailments<br>... Dental |                                                                      |
|              | Fri.                       | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              |                            | ... | a.m. & p.m.         | ... Orthopædic                   | ... Surgeon attends fourth Friday (p.m.) in each month only.         |
| Preston ...  | ... Wed.                   | ... | a.m. & p.m.         | ... Orthopædic                   | ... Surgeon attends second and fourth Wednesdays in each month only. |
| Ramsbottom   | ... Mon.                   | ... | a.m.                | ... Minor ailments               | ... Nurse only. Re-dressings.                                        |
|              | Tues.                      | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Wed.                       | ... | a.m.                | ... Minor ailments               |                                                                      |
|              | Thurs.                     | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Fri.                       | ... | a.m.                | ... Ophthalmic                   | ... Open alternate weeks only.                                       |
| Rawtenstall  | ... Wed.                   | ... | a.m.                | ... Orthopædic                   | ... Surgeon attends fourth Wednesday in each month only.             |
| Rishton ...  | ... Mon.                   | ... | a.m.<br>a.m. & p.m. | ... Minor ailments<br>... Dental | ... Nurse only. Re-dressings.                                        |
|              | Tues.                      | ... | a.m.<br>a.m. & p.m. | ... Ophthalmic<br>... Dental     | ... Open alternate weeks only                                        |
|              | Wed.                       | ... | p.m.                | ... Orthopædic                   | ... Surgeon attends fourth Wednesday in each month only.             |
|              | Thurs.                     | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Fri.                       | ... | a.m.                | ... Minor ailments               |                                                                      |
|              |                            |     |                     |                                  |                                                                      |
| Roehdale     | ... Mon.                   | ... | a.m.                | ... Orthopædic                   | ... Surgeon attends each week                                        |
|              | Fri.                       | ... | p.m.                | ... Ophthalmic                   | ... Open alternate weeks only                                        |
| Royton ...   | ... Tues.                  | ... | a.m.                | ... Minor ailments               |                                                                      |
|              | Wed.                       | ... | a.m. & p.m.<br>a.m. | ... Dental<br>... Ophthalmic     | ... Open alternate weeks only                                        |
|              | Thurs.                     | ... | a.m. & p.m.         | ... Dental                       |                                                                      |
|              | Fri.                       | ... | a.m.                | ... Minor ailments               | ... Nurse only. Re-dressings.                                        |
| Skelmersdale | ... Wed.                   | ... | p.m.                | ... Inspection                   |                                                                      |

| Township.         | Days and Times of Opening. |     |                     | Nature of work undertaken.         | Remarks.                                                        |
|-------------------|----------------------------|-----|---------------------|------------------------------------|-----------------------------------------------------------------|
| Thornton-le-Fylde | ... Mon.                   | ... | a.m.                | ... Minor ailments                 | ... Medical Officer attends alternate weeks.                    |
|                   | Thurs.                     |     | a.m.                | ... Minor ailments                 | ... Nurse only. Re-dressings.                                   |
| Tyldesley         | ... Mon.                   | ... | a.m. & p.m.<br>p.m. | ... Dental<br>... Orthopædic       | ... Nurse only.                                                 |
|                   | Tues.                      | ... | a.m.                | ... Minor ailments                 |                                                                 |
|                   | Wed.                       | ... | a.m. & p.m.<br>a.m. | ... Dental<br>... Orthopædic       | ... Surgeon attends second Wednesday in each month only.        |
|                   | Thurs.                     | ... | a.m. & p.m.<br>p.m. | ... Dental<br>... Minor ailments   | ... Nurse only. Re-dressings.                                   |
|                   | Fri.                       | ... | a.m.                | ... Ophthalmic                     | ... Open alternate weeks only.                                  |
|                   |                            |     |                     |                                    |                                                                 |
| Uiverston         | ... Mon.                   | ... | a.m.<br>a.m. & p.m. | ... Minor ailments<br>... Dental   | ... Nurse only. Re-dressings.                                   |
|                   | Tues.                      | ... | p.m.                | ... Orthopædic                     | ... Third Tuesday alternate months.                             |
|                   | Wed.                       | ... | a.m.<br>a.m.        | ... Minor ailments<br>... Dental   |                                                                 |
|                   | Thurs.                     | ... | a.m.<br>p.m.        | ... Ophthalmic<br>... Dental       | ... Open alternate weeks only.                                  |
|                   | Fri.                       | ... | a.m. & p.m.         | ... Dental                         |                                                                 |
|                   |                            |     |                     |                                    |                                                                 |
| Walkden           | ... Mon.                   | ... | a.m. & p.m.<br>p.m. | ... Dental<br>... Ophthalmic       | ... Open alternate weeks only.                                  |
|                   | Tues.                      | ... | a.m.                | ... Minor ailments                 | ... Nurse only. Re-dressings.                                   |
|                   | Wed.                       | ... | a.m. & p.m.         | ... Dental                         |                                                                 |
|                   | Thurs.                     | ... | a.m. & p.m.         | ... Dental                         |                                                                 |
|                   | Fri.                       | ... | a.m.                | ... Minor ailments                 |                                                                 |
|                   |                            |     |                     |                                    |                                                                 |
| Westhoughton      | ... Mon.                   | ... | a.m.<br>a.m.        | ... Dental<br>... Minor ailments   |                                                                 |
|                   | Tues.                      | ... | p.m.                | ... Artificial light               |                                                                 |
|                   | Wed.                       | ... | a.m. & p.m.<br>a.m. | ... Dental<br>... Ophthalmic       | ... Open every fourth Wednesday only.                           |
|                   | Thurs.                     | ... | a.m. & p.m.<br>p.m. | ... Dental<br>... Minor ailments   | ... Nurse only. Re-dressings.                                   |
|                   | Fri.                       | ... | a.m.<br>a.m.        | ... Dental<br>... Artificial light |                                                                 |
|                   |                            |     |                     |                                    |                                                                 |
| Whitefield        | ... Mon.                   | ... | a.m. & p.m.         | ... Dental                         |                                                                 |
|                   | Tues.                      | ... | a.m.                | ... Minor ailments                 |                                                                 |
|                   | Wed.                       | ... | a.m. & p.m.<br>a.m. | ... Dental<br>... Orthopædic       | ... Surgeon attends third Wednesday in each month only.         |
|                   | Thurs.                     | ... | a.m. & p.m.         | ... Orthopædic                     | ... Nurse only.                                                 |
|                   | Fri.                       | ... | a.m.                | ... Ophthalmic                     | ... Open alternate weeks only.                                  |
|                   |                            |     | p.m.<br>a.m. & p.m. | ... Minor ailments<br>... Dental   | ... Nurse only. Re-dressings.                                   |
| Whitworth         | ... Mon.                   | ... | a.m.                | ... Minor ailments                 |                                                                 |
|                   | Thurs.                     | ... | a.m.                | ... Minor ailments                 | ... Nurse only. Re-dressings.                                   |
|                   | Fri.                       | ... | a.m. & p.m.         | ... Dental                         |                                                                 |
| Wigan             | ... Mon.                   | ... | a.m.                | ... Orthopædic                     | ... Surgeon attends first and third Mondays in each month only. |



Attendances.—The following table shows the number of attendances made at the various School Clinics during the year 1933 :—

| NAME OF CLINIC.       | MINOR AILMENTS.         |             |                                     |             | DENTAL.                 |                                     |                                | OPHTHALMIC.             |                                     | ARTIFICIAL LIGHT.       |                                     |
|-----------------------|-------------------------|-------------|-------------------------------------|-------------|-------------------------|-------------------------------------|--------------------------------|-------------------------|-------------------------------------|-------------------------|-------------------------------------|
|                       | Children of School Age. |             | Children under 5 and not at School. |             | Children of School Age. | Children under 5 and not at School. | Nursing and Expectant Mothers. | Children of School Age. | Children under 5 and not at School. | Children of School Age. | Children under 5 and not at School. |
|                       | Treatment.              | Inspection. | Treatment.                          | Inspection. |                         |                                     |                                |                         |                                     |                         |                                     |
| Ashton-in-Makerfield  | 2,089                   | 1,180       | 10                                  | 13          | 1,635                   | ...                                 | ...                            | 816                     | ...                                 | ...                     | ...                                 |
| Ashton-under-Lyne...  | ...                     | ...         | ...                                 | ...         | ...                     | ...                                 | ...                            | ...                     | ...                                 | 325                     | 110                                 |
| Atherton ... ..       | 1716                    | 443         | ...                                 | 3           | 1,295                   | 7                                   | ...                            | ...                     | ...                                 | 343                     | 787                                 |
| Audenshaw ... ..      | 2,009                   | 852         | 33                                  | 9           | 1,991                   | 22                                  | 3                              | 459                     | 15                                  | ...                     | ...                                 |
| Carnforth ... ..      | 372                     | 194         | 61                                  | 18          | 787                     | 8                                   | 53                             | 145                     | 6                                   | ...                     | ...                                 |
| Chorley ... ..        | 691                     | 127         | 74                                  | 21          | 1,324                   | ...                                 | 1                              | 262                     | 1                                   | 553                     | 136                                 |
| Crompton ... ..       | 1,106                   | 890         | 5                                   | 20          | 1,126                   | 12                                  | ...                            | 354                     | 22                                  | ...                     | ...                                 |
| Dalton-in-Furness ... | 1,845                   | 391         | 182                                 | 49          | 1,016                   | 29                                  | 67                             | 295                     | 17                                  | ...                     | ...                                 |
| Davyhulme ... ..      | 352                     | 1,022       | 16                                  | 15          | 1,418                   | 56                                  | 3                              | 310                     | 38                                  | ...                     | ...                                 |
| Droylsden ... ..      | 1,056                   | 341         | 2                                   | 17          | 716                     | 18                                  | ...                            | 134                     | 6                                   | ...                     | ...                                 |
| Earlestown ... ..     | 1,671                   | 463         | 7                                   | 4           | 2,142                   | 11                                  | 16                             | 480                     | 6                                   | ...                     | ...                                 |
| Fleetwood ... ..      | 4,310                   | 434         | 268                                 | 25          | 2,634                   | 41                                  | 71                             | 450                     | 88                                  | ...                     | ...                                 |
| Great Crosby ... ..   | 32                      | 21          | ...                                 | ...         | 1,119                   | ...                                 | ...                            | ...                     | ...                                 | ...                     | ...                                 |
| Haydock ... ..        | 1,481                   | 185         | 7                                   | ...         | 487                     | 29                                  | 43                             | 461                     | 23                                  | ...                     | ...                                 |
| Horwich ... ..        | 1,938                   | 546         | ...                                 | 1           | 1,096                   | 11                                  | 31                             | 198                     | ...                                 | 725                     | ...                                 |
| Irlam ... ..          | 1,330                   | 347         | 17                                  | 11          | 2,023                   | 25                                  | 17                             | 329                     | 5                                   | ...                     | ...                                 |
| Kearsley ... ..       | 1,507                   | 498         | 20                                  | ...         | 1,643                   | 13                                  | 14                             | 623                     | 10                                  | ...                     | ...                                 |
| Lancaster ... ..      | ...                     | ...         | ...                                 | ...         | ...                     | ...                                 | ...                            | 31                      | 5                                   | ...                     | ...                                 |
| Leyland ... ..        | 4,995                   | 317         | 414                                 | 52          | 2,043                   | 27                                  | 15                             | 360                     | 25                                  | ...                     | ...                                 |
| Litherland ... ..     | 2,735                   | 727         | 47                                  | 8           | 1,706                   | 88                                  | 41                             | 1,000                   | 25                                  | ...                     | ...                                 |
| Littleborough ... ..  | 1,815                   | 390         | 34                                  | 26          | 930                     | 18                                  | 6                              | 555                     | 50                                  | ...                     | ...                                 |
| Milnrow ... ..        | 1,295                   | 166         | 37                                  | 10          | 418                     | 5                                   | 3                              | ...                     | ...                                 | ...                     | ...                                 |
| Ormskirk ... ..       | 2,011                   | 67          | ...                                 | 1           | 733                     | 12                                  | 9                              | ...                     | ...                                 | ...                     | ...                                 |
| Orrell ... ..         | 1,280                   | 569         | 10                                  | 11          | 970                     | 15                                  | 25                             | 729                     | 24                                  | ...                     | ...                                 |
| Oswaldtwistle ... ..  | 1,572                   | 411         | 45                                  | 25          | 986                     | 2                                   | 4                              | 237                     | 16                                  | ...                     | ...                                 |
| Padiham ... ..        | 684                     | 238         | 22                                  | 13          | 1,893                   | 1                                   | 6                              | 143                     | 12                                  | ...                     | ...                                 |
| Prescot ... ..        | 1,742                   | 1,639       | 111                                 | 110         | 2,008                   | 139                                 | 148                            | 229                     | 15                                  | ...                     | ...                                 |
| Ramsbottom ... ..     | 1,269                   | 451         | 3                                   | ...         | 1,423                   | 3                                   | 2                              | 368                     | 3                                   | ...                     | ...                                 |
| Rishton ... ..        | 2,271                   | 686         | 54                                  | 24          | 1,918                   | 4                                   | ...                            | 353                     | 6                                   | ...                     | ...                                 |
| Rochdale ... ..       | ...                     | ...         | ...                                 | ...         | ...                     | ...                                 | ...                            | 186                     | 41                                  | ...                     | ...                                 |
| Royton ... ..         | 4,875                   | 1,014       | ...                                 | ...         | 1,700                   | 1                                   | ...                            | 594                     | 3                                   | ...                     | ...                                 |
| Skelmersdale ... ..   | ...                     | 313         | ...                                 | ...         | ...                     | ...                                 | ...                            | ...                     | ...                                 | ...                     | ...                                 |
| Thornton-le-Fylde ... | 1,083                   | 297         | 286                                 | 29          | ...                     | ...                                 | ...                            | ...                     | ...                                 | ...                     | ...                                 |
| Tyldesley ... ..      | 2,140                   | 374         | 7                                   | 9           | 1,768                   | 4                                   | ...                            | 564                     | ...                                 | ...                     | ...                                 |
| Ulverston ... ..      | 3,168                   | 544         | 319                                 | 61          | 1,241                   | 13                                  | 91                             | 266                     | 21                                  | ...                     | ...                                 |
| Walkden ... ..        | 783                     | 206         | 1                                   | 6           | 1,404                   | 14                                  | 5                              | 305                     | ...                                 | ...                     | ...                                 |
| Westhoughton ... ..   | 1,816                   | 329         | ...                                 | 3           | 1,635                   | 25                                  | 7                              | 348                     | ...                                 | 104                     | ...                                 |
| Whitefield ... ..     | 1,693                   | 452         | ...                                 | ...         | 2,492                   | 25                                  | 2                              | 500                     | 15                                  | ...                     | ...                                 |
| Whitworth ... ..      | 1,238                   | 334         | ...                                 | 10          | 607                     | 4                                   | 1                              | ...                     | ...                                 | ...                     | ...                                 |
| Total ... ..          | 61,970                  | 17,458      | 2,092                               | 604         | 48,327                  | 682                                 | 684                            | 12,084                  | 498                                 | 2,050                   | 1,039                               |

Number of attendances made by children of school age ... 141,889  
Number of attendances made by Child Welfare cases ... 5,599

Total ... 147,488

Hospital Treatment.—Arrangements have been made with the following Hospitals etc., for the treatment of specified classes of defect, those marked with an asterisk being new arrangements made during the year :—

|                                                            |     |                                                                                                                 |
|------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------|
| Ashton-under-Lyne Infirmary                                | ... | Tonsils and adenoids, refractions, operative treatment of squint, X-ray treatment of ringworm.                  |
| Ashton-under-Lyne Clinie<br>(Secondary School cases)       | ... | Refractions, teeth.                                                                                             |
| Blackburn Royal Infirmary                                  | ... | Tonsils and adenoids, X-ray treatment of ringworm, refractions, operative treatment of squint.                  |
| *Blackburn School Clinie                                   | ... | Teeth.                                                                                                          |
| Bolton Infirmary                                           | ... | Refractions, tonsils and adenoids, X-ray treatment of ringworm, operative treatment of squint.                  |
| Burnley Victoria Hospital                                  | ... | Refractions, tonsils and adenoids, operative treatment of squint.                                               |
| Bury Infirmary                                             | ... | Tonsils and adenoids, refractions, operative treatment of squint, X-ray treatment of ringworm.                  |
| Colne Hartley Hospital                                     | ... | Refractions, tonsils and adenoids, operative treatment of squint.                                               |
| Darwen Clinie<br>(Secondary School cases)                  | ... | Refractions, teeth.                                                                                             |
| Davyhulme Park Hospital                                    | ... | Tonsils and adenoids.                                                                                           |
| Fleetwood Hospital                                         | ... | Tonsils and adenoids.                                                                                           |
| Lancaster Royal Infirmary                                  | ... | Tonsils and adenoids.                                                                                           |
| Leigh Borough Clinie                                       | ... | Tonsils and adenoids.                                                                                           |
| Liverpool Eye, Ear and Throat<br>Infirmary (Myrtle Street) | ... | Tonsils and adenoids, refractions, operative treatment of squint.                                               |
| Liverpool St. Paul's Eye<br>Hospital                       | ... | Operative treatment of squint.                                                                                  |
| Manchester Ancoats Hospital                                | ... | Aural cases (operative treatment), tonsils and adenoids.                                                        |
| Manchester and Salford<br>Hospital for Skin Disease        | ... | X-ray treatment of ringworm.                                                                                    |
| Morecambe Clinie<br>(Secondary School cases)               | ... | Refractions, teeth.                                                                                             |
| Oldham Royal Infirmary                                     | ... | Refractions, operative treatment of squint, X-ray treatment of ringworm, tonsils and adenoids.                  |
| Ormskirk General Hospital                                  | ... | Tonsils and adenoids, refractions, eye operations.                                                              |
| Preston Royal Infirmary                                    | ... | Tonsils and adenoids, X-ray treatment of ringworm, refractions, operative treatment of squint, aural treatment. |
| Ramsbottom Cottage Hospital                                | ... | Tonsils and adenoids.                                                                                           |
| Rawtenstall Clinie                                         | ... | Minor ailments, teeth, refractions.                                                                             |
| St. Helens, Peasley Cross<br>Hospital                      | ... | Refractions, operative treatment of squint, tonsils and adenoids, *operative treatment of aural defects.        |
| Southport Infirmary<br>(Pilkington Road)                   | ... | Tonsils and adenoids.                                                                                           |
| Stretford Clinie<br>(Secondary School cases)               | ... | Tonsils and adenoids, refractions, aural treatment, teeth.                                                      |
| Ulverston Cottage Hospital                                 | ... | Tonsils and adenoids.                                                                                           |
| Warrington Infirmary                                       | ... | Tonsils and adenoids, refractions, operative treatment of squint.                                               |
| Whiston Infirmary                                          | ... | Operative treatment of squint.                                                                                  |
| Widnes Accident Hospital                                   | ... | Tonsils and adenoids.                                                                                           |
| Wigan Royal Infirmary                                      | ... | Tonsils and adenoids.                                                                                           |
| Wigan (Tower Buildings)                                    | ... | Refractions.                                                                                                    |



The following statement shows the number of individual children who received treatment under the Hospital scheme of the Lancashire County Council during the twelve months ended 31st December, 1933 :—

| Disease or Defect.                   | Elementary<br>Schools. | Secondary<br>Schools. | Child<br>Welfare. | Total. |
|--------------------------------------|------------------------|-----------------------|-------------------|--------|
| Enlarged Tonsils and Adenoids ... .. | 1,543                  | 13                    | 84                | 1,640  |
| Defective Vision ... ..              | 680                    | 72                    | 17                | 769    |
| Squint ... ..                        | 29                     | ...                   | ...               | 29     |
| Aural ... ..                         | 23                     | 1                     | ...               | 24     |
| Ringworm ... ..                      | 26                     | ...                   | 1                 | 27     |
| Teeth ... ..                         | 1                      | 21                    | ...               | 22     |

The following table shows the number of cases treated at each Hospital or Infirmary with which the Lancashire County Council has made arrangements :—

| Hospital, Infirmary, or<br>Treatment Centre.  | Tonsils<br>and<br>Adenoids. |     |      | Defective<br>Vision. |     |      | Squint | Aural. |     | Ringworm |      | Teeth |
|-----------------------------------------------|-----------------------------|-----|------|----------------------|-----|------|--------|--------|-----|----------|------|-------|
|                                               | E.                          | S.  | C.W. | E.                   | S.  | C.W. |        | E.     | S.  | E.       | C.W. |       |
| Ancoats Hospital ... ..                       | 111                         | 3   | 8    | ...                  | ... | ...  | ...    | 10     | ... | ...      | ...  | ...   |
| Ashton-under-Lyne District Infirmary...       | 71                          | ... | 3    | 19                   | 1   | 1    | 1      | ...    | ... | ...      | ...  | ...   |
| Ashton-under-Lyne Clinic ... ..               | ...                         | ... | ...  | ...                  | 3   | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Blackburn Royal Infirmary ... ..              | 53                          | ... | 2    | 34                   | ... | ...  | ...    | ...    | ... | 21       | 1    | ...   |
| Blackburn School Clinic ... ..                | ...                         | ... | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Bolton Royal Infirmary ... ..                 | 215                         | ... | 9    | ...                  | 5   | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Burnley Victoria Hospital ... ..              | 29                          | ... | 1    | 46                   | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Bury Infirmary ... ..                         | 5                           | 2   | ...  | 2                    | ... | ...  | ...    | ...    | ... | 2        | ...  | ...   |
| Colne Hartley Hospital ... ..                 | 2                           | ... | ...  | 7                    | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Darwen Clinic ... ..                          | ...                         | ... | ...  | ...                  | 4   | ...  | ...    | ...    | ... | ...      | ...  | 3     |
| Davyhulme Park Hospital ... ..                | 143                         | 3   | 7    | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Fleetwood Hospital ... ..                     | 120                         | 2   | 13   | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Lancaster Infirmary ... ..                    | 7                           | ... | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Leigh Borough Clinic ... ..                   | 39                          | 1   | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Liverpool Eye, Ear and Throat Hospital        | 74                          | ... | 6    | ...                  | ... | ...  | 19     | ...    | ... | ...      | ...  | ...   |
| Liverpool St. Paul's Eye Hospital ...         | ...                         | ... | ...  | ...                  | ... | ...  | 2      | ...    | ... | ...      | ...  | ...   |
| Manchester and Salford Hospital for Skin Dis. | ...                         | ... | ...  | ...                  | ... | ...  | ...    | ...    | ... | 2        | ...  | ...   |
| Morecambe Clinic ... ..                       | ...                         | ... | ...  | ...                  | 1   | ...  | ...    | ...    | ... | ...      | ...  | 2     |
| Oldham Royal Infirmary ... ..                 | 77                          | ... | 6    | 31                   | ... | ...  | 2      | ...    | ... | ...      | ...  | ...   |
| Ormskirk General Hospital ... ..              | 69                          | ... | 4    | 105                  | 3   | 11   | 1      | ...    | ... | ...      | ...  | ...   |
| Preston Royal Infirmary ... ..                | 149                         | ... | 10   | 223                  | ... | 5    | ...    | 2      | ... | 1        | ...  | ...   |
| Ramsbottom Cottage Hospital ... ..            | 33                          | ... | 1    | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Rawtenstall Clinic ... ..                     | ...                         | ... | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | 1     |
| Peasley Cross Hospital, St. Helens ...        | 178                         | ... | 10   | 2                    | ... | ...  | 3      | 11     | ... | ...      | ...  | ...   |
| Southport Infirmary ... ..                    | 6                           | 1   | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Stretford Clinic ... ..                       | ...                         | 1   | ...  | ...                  | 41  | ...  | ...    | ...    | 1   | ...      | ...  | 6     |
| Ulverston Cottage Hospital ... ..             | 69                          | ... | 3    | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Warrington Infirmary ... ..                   | 59                          | ... | 1    | ...                  | 9   | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Whiston Infirmary ... ..                      | ...                         | ... | ...  | ...                  | ... | ...  | 1      | ...    | ... | ...      | ...  | ...   |
| Widnes Accident Hospital ... ..               | 1                           | ... | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Wigan Royal Infirmary ... ..                  | 33                          | ... | ...  | ...                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Dr. Bywater, Tower Building, Wigan ...        | ...                         | ... | ...  | 150                  | ... | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Dr. Holmes, Tower Buildings, Wigan ...        | ...                         | ... | ...  | 61                   | 5   | ...  | ...    | ...    | ... | ...      | ...  | ...   |
| Total ... ..                                  | 1543                        | 13  | 84   | 680                  | 72  | 17   | 29     | 23     | 1   | 26       | 1    | 1     |

E. Elementary School Children. S. Secondary, Continuation and Technical School Children.  
C.W. Children in attendance at Child Welfare Centres.

MINOR AILMENTS.

These include such defects as running ears, external eye disease, skin diseases, etc., and treatment for them is available for approximately 91,000 children. The number of individual school children who received treatment under the County scheme during the year was 11,110.

TONSILS AND ADENOIDS.

Arrangements are now in force with the following Hospitals and Clinics for the operative treatment of tonsils and adenoids :—Ancoats Hospital, Manchester; Ashton-under-Lyne Infirmary; Blackburn Royal Infirmary; Bolton Infirmary; Burnley Victoria Hospital; Bury Infirmary; Davyhulme Park Hospital; Fleetwood Hospital; Hartley Hospital, Colne; Lancaster Royal Infirmary; Leigh Borough Clinic; Myrtle Street Hospital, Liverpool; Oldham

Royal Infirmary; Ormskirk Cottage Hospital; Peasley Cross Hospital, St. Helens; Preston Royal Infirmary; Ramsbottom Cottage Hospital; Southport Infirmary; Stretford Clinic; Ulverston Cottage Hospital; Warrington Infirmary; Widnes Accident Hospital; Wigan Royal Infirmary.

During the year the number of elementary school children who received operative treatment for this condition was 1,661, of whom 1,543 were treated under the County scheme.

#### TUBERCULOSIS.

The treatment of tuberculous school children is in the hands of the Tuberculosis Committee of the Lancashire County Council, and all cases for treatment are referred to the Tuberculosis Officer for the area concerned.

#### VISION.

The treatment of defects of vision is undertaken either in the Eye Departments of General Hospitals or in the Eye Departments of the County's own Clinics. In the former case it is undertaken by the Specialist Staff of the Hospital; in the latter case by part-time Visiting Specialists. Arrangements have been made with the following Hospitals:—Ashton-under-Lyne; Blackburn; Bolton; Burnley; Bury; Colne; Oldham; Ormskirk; Preston; St. Helens; Warrington; Whiston; Liverpool, Myrtle Street Eye and Ear, and St. Paul's Eye; Wigan (Tower Buildings); also at the following Clinics:—Ashton-under-Lyne; Darwen; Morecambe; Rawtenstall; Stretford.

Visiting Specialists attend the County's School Clinics in Ashton-in-Makerfield, Audenshaw, Carnforth, Chorley, Crompton, Dalton-in-Furness, Davyhulme, Droylsden, Earlestown, Fleetwood, Haydock, Horwich, Irlam, Kearsley, Lancaster, Leyland, Litherland, Littleborough, Longridge, Orrell, Oswaldtwistle, Padiham, Prescott, Ramsbottom, Rishton, Rochdale, Royton, Tyldesley, Ulverston, Walkden, Westhoughton, and Whitefield.

The number of children for whom Specialist eye treatment is available is approximately 122,000. The number of elementary school children who received treatment for errors of refraction (including squint) was 6,235, of whom 6,062 were dealt with under the County scheme.

Arrangements have also been made with certain firms of opticians, in connection with each Ophthalmic Clinic or Hospital, to supply spectacles at a fixed low charge. In necessitous cases the charge is reduced or remitted altogether. The number of children who either purchased glasses or received free spectacles under this scheme was 4,089.

In one area a local charity has arranged for the treatment of visual defect in elementary school children, and provides spectacles free of charge to every child requiring them.

#### DENTAL DEFECTS.

The dental staff now consists of sixteen full-time and one part-time dental surgeons, each assisted by a nurse or dental attendant. Dental Clinics have been established in Ashton-in-Makerfield, Atherton, Audenshaw, Carnforth, Chorley, Crompton, Dalton-in-Furness, Davyhulme, Droylsden, Earlestown, Fleetwood, Great Crosby, Haydock, Horwich, Irlam, Kearsley, Leyland, Litherland, Littleborough, Longridge, Milnrow, Ormskirk, Orrell, Oswaldtwistle, Padiham, Prescott, Ramsbottom, Rishton, Royton, Tyldesley, Ulverston, Walkden, Westhoughton, Whitefield, and Whitworth.

These Clinics serve schools with an average attendance of approximately 77,000 children. The number of elementary school children who received treatment during the year was 28,151.

Apart from routine work, the dentists treat the following classes:—

- (a) Expectant and nursing mothers, on the recommendation of the Medical Officers;
- (b) Children under school age, similarly;
- (c) Casuals.

Casuals are of three classes:—

- (a) Urgent cases, *e.g.* toothache, dental abscess;
- (b) Cases where the mouth has to be put into a clean condition previous to operation for tonsils and adenoids;
- (c) Cases in which the Medical Officer requests that dental treatment should be given for some other medical reason.



During the year 61,374 children were inspected by dentists : of these 44,875, or 73·1 per cent., were found to require treatment, and of those needing treatment 62·7 per cent. actually obtained it, as against the percentages of 73·7 per cent. and 62·4 per cent. respectively for the previous year.

|      |     |     | Total<br>Inspections. | Percentage<br>needing<br>Treatment. | Percentage actually<br>treated of those<br>in previous<br>Column. |
|------|-----|-----|-----------------------|-------------------------------------|-------------------------------------------------------------------|
| 1925 | ... | ... | 10,458                | 81·3                                | 75·8                                                              |
| 1926 | ... | ... | 18,676                | 80·7                                | 77·3                                                              |
| 1927 | ... | ... | 25,434                | 78·7                                | 78·8                                                              |
| 1928 | ... | ... | 34,037                | 74·6                                | 67·2                                                              |
| 1929 | ... | ... | 40,053                | 78·5                                | 64·1                                                              |
| 1930 | ... | ... | 46,550                | 77·0                                | 66·1                                                              |
| 1931 | ... | ... | 49,025                | 78·2                                | 68·8                                                              |
| 1932 | ... | ... | 61,869                | 73·7                                | 62·4                                                              |
| 1933 | ... | ... | 61,374                | 73·1                                | 62·7                                                              |

In most of the areas for which dental inspection is available all age groups are now undergoing routine examination, rather more than half the elementary school population being covered. The table above shows the number of inspections, the percentages of those needing treatment and the percentages of the latter who actually obtained treatment during the last eight years. As each year has seen the influx of a new group, namely, the group aged 5 and 6 years, it is obvious that the condition of this group with regard to its dental state will influence the percentage of children needing treatment, diminishing the percentage if the teeth of the new group are in good order and increasing it if the teeth are in a worse condition than those of other entrants of previous years, other things being equal. The above figures include the special cases numbering 4,000–5,000 each year, and, if these are excluded, having been in most cases urgently recommended for treatment which has been carried out immediately, the corresponding percentages relating to the routine inspections can be calculated. The figures thus obtained show, in the first place, that there is little variation in the percentages of children undergoing routine examination and requiring treatment from year to year; they are all in the neighbourhood of 70–75 per cent. Whether due to imperfect tooth formation or subsequent destruction of enamel, or a combination of both, the same causes appear to be still at work, and the results in figures show little, if any, alteration by the introduction of the fresh groups in each year.

In the second place, the consent to treatment in the routine groups is disappointing. These consents have been given in the last few years in 58–65 per cent. of routine inspections recommended for treatment. The withholding of consent increases the likelihood of caries in the other teeth and the progress of caries in the teeth already affected. When a septic condition has been set up it is too late to save the teeth, and delayed action is a detriment to the child's health and a source of interference with the normal working of the dental scheme.

#### ARTIFICIAL LIGHT TREATMENT.

Clinics have been established at Ashton-under-Lyne, Atherton, Chorley, Horwich, and Westhoughton for the treatment by artificial light of certain children in sub-normal health, and during the year 128 children received this form of treatment, making 3,089 attendances.

#### INFECTIOUS DISEASES.

Of administrative procedures for the prevention of infectious disease the most important are :—

- 1.—The exclusion of children suffering from, or showing symptoms suggestive of, infectious disease, or who may, it is feared, develop disease after exposure to infection;
- 2.—The closure of schools or of departments of schools.

During 1933 it was found necessary to close 330 schools on account of the prevalence of infectious disease. Every endeavour has again been made by the Assistant County Medical Officers to work in close co-operation with the local Medical Officers of Health whenever the closure of a school or department was in question.

The following tables show the number of schools which were closed during the year and the causes of closure :

*No. of Schools Closed during 1933 by the Sanitary Authority  
(Article 22 of the Code).*

|                       |     |     |     |     |     |     |     |     |     |                 |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|
| Influenza             | ... | ... | ... | ... | ... | ... | ... | ... | ... | 188             |
| Measles and Mumps     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2               |
| Diphtheria            | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6               |
| Chicken-pox           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6               |
| Measles               | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6               |
| Chicken-pox and Mumps | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Scarlet Fever         | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2               |
| Whooping Cough        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4               |
| Defective Drains      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Water Cut off         | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
|                       |     |     |     |     |     |     |     |     |     | <hr/> 217 <hr/> |

*No. of Schools Closed during 1933 by the School Medical Officer  
(Article 23 (b) of the Code).*

|                               |     |     |     |     |     |     |     |     |     |                 |
|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|
| Influenza                     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 96              |
| Chicken-pox                   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Influenza and Mumps           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Whooping Cough                | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Measles and Whooping Cough    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Measles                       | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2               |
| Mumps                         | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Scarlet Fever                 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6               |
| Scarlet Fever and Influenza   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Scarlet Fever and Chicken-pox | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Diphtheria                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
| Diphtheria and Chicken-pox    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               |
|                               |     |     |     |     |     |     |     |     |     | <hr/> 113 <hr/> |

Frequently requests are made that a school should be closed because the attendance has fallen considerably. The necessity for closure is not always obvious, for in urban areas the children have opportunities of meeting in other places than the school.

In such cases, however, the School Medical Officer is empowered, under the Education Act, 1921 (Admin. Memo. No. 51, Art. 15), to give certificates to any school or department where the attendance, on account of the occurrence of infectious disease, has fallen below 60 per cent. of the number of children on the register.

The number of such certificates given during 1933 was 747.

**SCHOOL HYGIENE.**—The new schools provided by the County have every facility for a healthy school life which could be demanded reasonably. The older schools, admittedly, are in a much inferior position, but even here the correct use of whatever facilities exist can make up for many deficiencies. A clean, dustless school, with proper spacing of the children, is of great assistance in the prevention of infection, coupled with the intelligent observation of slightly ailing children and the rigid exclusion, for an adequate period, of those known to convey infection, *e.g.* cases of "sore throat." Too great a reliance is frequently placed upon chemical disinfection of the school premises, whereas, in fact, the sources of infection are not in the inanimate objects in the school, but in the persons actually in attendance.

Reports are received at every inspection of any defects found in the premises.

(B). **LOCAL SCHOOL CLINICS, ETC.**—Outside the area of the Administrative County for Elementary Education, *i.e.* the County School Medical area, there are the 20 Non-County Boroughs, and the following seven Urban Districts : Chadderton, Farnworth, Hindley, Ince-in-Makerfield, Radcliffe, Swinton and Pendlebury, and Waterloo-with-Seaforth. In each of these areas a school clinic has been established.

**Artificial Light Clinics.**—The local reports of Ashton-under-Lyne (B), Brierfield, Chadderton, Chorley (B), Colne (B), Denton, Haslingden (B), Heywood (B), Hindley, Horwich, Lancaster (B), Leigh (B), Middleton (B), Stretford (B), Swinton and Pendlebury, Waterloo-with-Seaforth, West-houghton, Widnes (B), etc., state that an artificial light clinic has been established or is available. In addition, there are the clinics established under the County Council's tuberculosis scheme.

**Venereal Diseases Treatment Centres.**—Particulars of the County Council scheme for the diagnosis and treatment of venereal diseases and a list of the Treatment Centres are given on pages 204 to 211.



**Ambulance Facilities.**—In almost every County district ambulance facilities are available both for infectious cases and for non-infectious and accident cases, and in the majority of districts for maternity cases, as will be seen below :—

|               |     |     | For infectious<br>cases—<br>No. of Districts. | For non-<br>infectious and<br>accident cases—<br>No. of Districts. | For Maternity<br>cases—<br>No. of Districts. |
|---------------|-----|-----|-----------------------------------------------|--------------------------------------------------------------------|----------------------------------------------|
| Motor Vehicle | ... | ... | 98                                            | 109                                                                | 76                                           |
| Horse         | „   | ... | 11                                            | —                                                                  | —                                            |
| Nil           | ... | ... | 2                                             | 2                                                                  | 35                                           |

**Vaccination.**—THE VACCINATION ACTS, 1867–1907.—THE VACCINATION ORDER, 1930.—Under Section 2 of the Local Government Act, 1929, from the appointed day, the 1st April, 1930, the functions relating to vaccination, formerly discharged by Poor Law Authorities, have been discharged by the Councils of Counties and County Boroughs as functions relating to public health.

The County Council resolved that these functions be carried out under the direction and control of the Public Health and Housing Committee.

The law relating to vaccination is contained in the Vaccination Acts, 1867, 1871, 1874, 1898, and 1907. The Vaccination Order, 1930, rescinded from the 1st April, 1930, all the previous Vaccination Orders.

The vaccination service of the Administrative County was taken over by the County Public Health Department on the 1st April, 1930, in accordance with the provisions of the Local Government Act, 1929. At the present time (August, 1934) there are 138 Public Vaccinators and 53 Vaccination Officers functioning in the County area. The names of these officers and their respective areas follow on pages 75 to 80. The vaccination areas are coterminous with registration districts or sub-districts. The administration of the Acts is proceeding on the same lines as before the transfer. \*In 1932 the Minister of Health communicated with the County Councils Association and the other Associations of Local Authorities asking that, in the light of experience which the new vaccination authorities had by that time gained of the working of the Vaccination Acts, they should inform him of any proposals they desired to make for facilitating the general acceptance of vaccination and preventing the spread of smallpox. From the replies which have been received it appears that the majority of the Authorities concerned favour the replacement of the compulsory provisions of the Vaccination Acts by provisions for the free vaccination, with Government lymph and under the control of the Local Authorities, of persons presenting themselves or of children presented by their parents, for vaccination or re-vaccination. The replies of the representative bodies are now under consideration.

NUMBER OF VACCINATIONS, AND RE-VACCINATIONS, EXEMPTION CERTIFICATES, ETC.—The Minister of Health, through the Registrar-General, requested that a Return, Form M379, be supplied relating to vaccination, etc., of children whose births were registered from 1st January to 31st December, 1932, and another Return, Form M379a, as to the number of persons successfully vaccinated and re-vaccinated during the year ended 30th September, 1933.

The tables M379 and M379a are given on pages 73 and 74. From the former table, relating to the year 1932, it will be noted that of the 23,893 births included in the return, the number which at the time the Return was made, had been registered as successfully vaccinated was 7,463 (being 31·2 per cent. of the whole), and the number registered as having died un-vaccinated was 1,163 (or 4·8 per cent. of the whole). Of the remaining children 98 (or 0·4 per cent. of the whole) had been registered as insusceptible of vaccination, or as having had smallpox; 192 (or 0·8 per cent.) as having their vaccination postponed by medical certificate; and 13,646 (or 57·1 per cent.) in respect of whom certificates of conscientious objection were received; leaving 1,331 (or 5·5 per cent.) as “removed,” “not traced,” or otherwise not accounted for. If from the births included in the return the deaths that took place before vaccination be first deducted, it appears that of the surviving 22,730 children, there were registered at the time of the return, 32·8 per cent. as successfully vaccinated; 0·4 per cent. as either insusceptible of vaccination, or as having had smallpox; 0·8 per cent. as under medical certificate of postponement, and 60·0 per cent. in respect of whom certificates of conscientious objection to vaccination had been obtained, leaving 5·8 per cent. as at the time still unaccounted for as regards vaccination.

The cost to the County Council for vaccination work for the year 1932–33, was £4,161 1s. 10d.

The tables following show the position in regard to vaccination in the Administrative County and in the various divisions. The percentage of successful vaccinations in the County area has again declined, and in the latest year for which vaccination statistics are available, the percentage was only 32·8 against 33·4 in 1931, 34·9 in 1930 and 38·0 in 1929. Conversely, the percentage of statutory declarations is rising, viz., 60·0 in 1932, 59·6 in 1931, 58·1 in 1930, and 54·9 in 1929.

There is a very wide variation in the percentage of vaccinations in the County divisions, for example, in the Ulverston area the percentage of successful vaccinations to total births in the year 1932 was 66·0, in the Ormskirk area 64·0, in the Lancaster area 61·4, whilst in the Haslingden area the percentage was only 13·0, in the Burnley area 13·3, and 14·6 in the Ashton-under-Lyne area.

\*From the fourteenth Annual Report of the Ministry of Health, 1932–33.

RETURN respecting the Vaccination of Children whose Births were registered from 1st January to 31st December, 1932, inclusive.

|    | Guardians' Committees Areas.     | No. of Births in "Birth List Sheets" registered 1st Jan. to 31st Dec., 1932. | No. of these Births entered by 31st January, 1934, in Cols. I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz. |                        |                |                                         | No. of Births which on 31st Jan., 1934, remained unentered in the "Vaccination Register" on account of: |                            |                                      | Number of these Births remaining neither entered in the "Vacc. Reg.," nor temporarily accounted for in "Report Book." | No. of Certs. of successful Primary Vacc. of Children under 14 received during 1933. * | (See Footnote). † | No. of Statutory Declarations of Conscientious Objection recd. by V.O. during 1933. |
|----|----------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------|
|    |                                  |                                                                              | Col. I. Successfully Vacc.                                                                                                          | Col. II.               |                | Col. IV. No. of Statutory Declarations. | (See footnote). †                                                                                       | Col. V. Died Unvaccinated. | Postponement by Medical Certificate. | Removal to V.O.'s of which have been appraised.                                                                       | Removal to places unknown and Cases not found.                                         |                   |                                                                                     |
|    |                                  |                                                                              |                                                                                                                                     | Insusceptible of Vacc. | Had Small-pox. |                                         |                                                                                                         |                            |                                      |                                                                                                                       |                                                                                        |                   |                                                                                     |
|    |                                  | 2                                                                            | 3                                                                                                                                   | 4                      | 5              | 6                                       | 6a                                                                                                      | 7                          | 8                                    | 9                                                                                                                     | 10                                                                                     | 12a               | 13                                                                                  |
| 1  | Ulverston ... ..                 | 472                                                                          | 304                                                                                                                                 | 3                      | —              | 134                                     | 5                                                                                                       | 12                         | 6                                    | 1                                                                                                                     | 7                                                                                      | 19                | 159                                                                                 |
| 2  | Lancaster ... ..                 | 1,150                                                                        | 667                                                                                                                                 | 2                      | —              | 368                                     | 1                                                                                                       | 64                         | 10                                   | 8                                                                                                                     | 15                                                                                     | 24                | 388                                                                                 |
| 3  | Fylde and Garstang ... ..        | 1,255                                                                        | 261                                                                                                                                 | 6                      | —              | 605                                     | 1                                                                                                       | 42                         | 12                                   | 16                                                                                                                    | 71                                                                                     | 23                | 612                                                                                 |
| 4  | Preston and Chorley ... ..       | 1,762                                                                        | 608                                                                                                                                 | 18                     | —              | 872                                     | —                                                                                                       | 90                         | 40                                   | 26                                                                                                                    | 59                                                                                     | 25                | 858                                                                                 |
| 5  | Blackburn and Clitheroe ... ..   | 1,151                                                                        | 351                                                                                                                                 | 4                      | —              | 724                                     | 1                                                                                                       | 56                         | 2                                    | 1                                                                                                                     | 7                                                                                      | 31                | 720                                                                                 |
| 6  | Burnley ... ..                   | 1,252                                                                        | 159                                                                                                                                 | 2                      | —              | 1,025                                   | —                                                                                                       | 59                         | 2                                    | 2                                                                                                                     | —                                                                                      | 7                 | 1,017                                                                               |
| 7  | Haslingden ... ..                | 1,190                                                                        | 148                                                                                                                                 | 1                      | —              | 969                                     | —                                                                                                       | 55                         | 1                                    | 7                                                                                                                     | 2                                                                                      | 23                | 857                                                                                 |
| 8  | Ormskirk ... ..                  | 1,572                                                                        | 956                                                                                                                                 | 14                     | —              | 417                                     | —                                                                                                       | 80                         | 14                                   | 24                                                                                                                    | 33                                                                                     | 236               | 433                                                                                 |
| 9  | Wigan ... ..                     | 1,837                                                                        | 456                                                                                                                                 | 2                      | —              | 1,195                                   | 2                                                                                                       | 84                         | 14                                   | 3                                                                                                                     | 49                                                                                     | 18                | 1,110                                                                               |
| 10 | Bolton ... ..                    | 1,542                                                                        | 429                                                                                                                                 | 10                     | —              | 933                                     | —                                                                                                       | 104                        | 10                                   | 39                                                                                                                    | 11                                                                                     | 36                | 1,063                                                                               |
| 11 | Rochdale and Bury ... ..         | 2,014                                                                        | 323                                                                                                                                 | 8                      | —              | 1,418                                   | —                                                                                                       | 86                         | 3                                    | 45                                                                                                                    | 63                                                                                     | 90                | 1,402                                                                               |
| 12 | Prescot ... ..                   | 1,446                                                                        | 817                                                                                                                                 | 4                      | —              | 476                                     | 1                                                                                                       | 66                         | 8                                    | 43                                                                                                                    | 14                                                                                     | 44                | 495                                                                                 |
| 13 | Leigh ... ..                     | 2,045                                                                        | 508                                                                                                                                 | 5                      | —              | 1,396                                   | 2                                                                                                       | 94                         | 8                                    | 13                                                                                                                    | 12                                                                                     | 15                | 1,381                                                                               |
| 14 | Barton-upon-Irwell ... ..        | 2,564                                                                        | 1058                                                                                                                                | 4                      | —              | 1,169                                   | —                                                                                                       | 110                        | 40                                   | 27                                                                                                                    | 99                                                                                     | 134               | 1,195                                                                               |
| 15 | Oldham ... ..                    | 1,109                                                                        | 206                                                                                                                                 | 3                      | —              | 801                                     | —                                                                                                       | 74                         | 10                                   | 1                                                                                                                     | 10                                                                                     | 14                | 753                                                                                 |
| 16 | Ashton-under-Lyne ... ..         | 1,534                                                                        | 212                                                                                                                                 | 12                     | —              | 1,144                                   | 2                                                                                                       | 87                         | 12                                   | 22                                                                                                                    | 13                                                                                     | 51                | 1,111                                                                               |
|    | Administrative County Totals ... | 23,893                                                                       | 7,463                                                                                                                               | 98                     | —              | 13,646                                  | 15                                                                                                      | 1,163                      | 192                                  | 278                                                                                                                   | 465                                                                                    | 790               | 13,554                                                                              |

NOTE.—(a) Total of Cols. 3 to 11 agree with Col. 2. Children successfully vaccinated after declaration of conscientious objection included in Col. 6. †The number of such cases inserted in Col. 6a.

\* Total in this column is the number of Certificates of successful primary vaccinations of children under 14 actually received during year including any relating to births registered in previous years. The total thus given includes the Certificates of successful primary vaccinations of which copies have been sent to Vaccination Officers of other districts. ‡Number of Certificates for 1933 sent to other Vaccination Officers is given in Col. 12a.

(b) Figures in Cols. 2 to 11 do not include re-registered births or cases of children born in other districts.



## ADMINISTRATIVE COUNTY OF LANCASTER.

Ministry of Health Form M.379a.

## VACCINATION.—Year ended 30th September, 1933.

RETURN showing the Numbers of Persons successfully vaccinated and re-vaccinated at the cost of the rates by the Medical Officers of the Poor Law Institutions and the Public Vaccinators during the year ended 30th September, 1933 :—

| Guardians' Committees Areas.     |                         |     |     |     | Number of successful Primary Vaccinations of persons :— |                       |        | Number of successful Re-vaccinations, <i>i.e.</i> , successful vaccinations of persons who had been successfully vaccinated at some previous time. |
|----------------------------------|-------------------------|-----|-----|-----|---------------------------------------------------------|-----------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  |                         |     |     |     | Under one year of age.                                  | One year and upwards. | Total. |                                                                                                                                                    |
| No.                              |                         |     |     |     |                                                         |                       |        |                                                                                                                                                    |
| 1.                               | Ulverston               | ... | ... | ... | 234                                                     | 21                    | 255    | 15                                                                                                                                                 |
| 2.                               | Lancaster               | ... | ... | ... | 464                                                     | 31                    | 495    | 7                                                                                                                                                  |
| 3.                               | Fylde and Garstang      | ... | ... | ... | 171                                                     | 5                     | 176    | 41                                                                                                                                                 |
| 4.                               | Preston and Chorley     | ... | ... | ... | 394                                                     | 11                    | 405    | 4                                                                                                                                                  |
| 5.                               | Blackburn and Clitheroe | ... | ... | ... | 264                                                     | 6                     | 270    | 6                                                                                                                                                  |
| 6.                               | Burnley                 | ... | ... | ... | 108                                                     | 39                    | 147    | 9                                                                                                                                                  |
| 7.                               | Haslingden              | ... | ... | ... | 120                                                     | 8                     | 128    | 3                                                                                                                                                  |
| 8.                               | Ormskirk                | ... | ... | ... | 790                                                     | 22                    | 812    | 36                                                                                                                                                 |
| 9.                               | Wigan                   | ... | ... | ... | 466                                                     | 10                    | 476    | 10                                                                                                                                                 |
| 10.                              | Bolton                  | ... | ... | ... | 275                                                     | 18                    | 293    | 3                                                                                                                                                  |
| 11.                              | Rochdale and Bury       | ... | ... | ... | 221                                                     | 18                    | 239    | 3                                                                                                                                                  |
| 12.                              | Preseot                 | ... | ... | ... | 601                                                     | 24                    | 625    | 9                                                                                                                                                  |
| 13.                              | Leigh                   | ... | ... | ... | 394                                                     | 39                    | 433    | 86                                                                                                                                                 |
| 14.                              | Barton-upon-Irwell      | ... | ... | ... | 806                                                     | 79                    | 885    | 12                                                                                                                                                 |
| 15.                              | Oldham                  | ... | ... | ... | 199                                                     | 7                     | 206    | 3                                                                                                                                                  |
| 16.                              | Ashton-under-Lyne       | ... | ... | ... | 147                                                     | 10                    | 157    | 6                                                                                                                                                  |
| Administrative County Totals ... |                         |     |     |     | 5,654                                                   | 348                   | 6,002  | 253                                                                                                                                                |

Total live Births "registered" in Administrative County—

|                                |     |     |     |     |     |        |
|--------------------------------|-----|-----|-----|-----|-----|--------|
| Year ended 31st December, 1932 | ... | ... | ... | ... | ... | 24,239 |
| Year ended 31st December, 1933 | ... | ... | ... | ... | ... | 23,315 |

Reference to Table M.379, page 73, will show the number of successful vaccinations, number of certificates of exemptions, etc., in the year 1932, in the various County areas. The statement below shows these figures in percentages to total births after deducting the number of children who died un-vaccinated before the date of the return. For comparison the percentages for 1929, 1930 and 1931 are also given :—

| Areas.                |                         |      |     | Percentage of successful vaccinations. |      |      |      | Percentage of statutory declarations. |      |      |      |
|-----------------------|-------------------------|------|-----|----------------------------------------|------|------|------|---------------------------------------|------|------|------|
|                       |                         | 1929 |     | 1930                                   | 1931 | 1932 |      | 1929                                  | 1930 | 1931 | 1932 |
| 1.                    | Ulverston               | ...  | ... | 71.0                                   | 74.1 | 68.4 | 66.0 | 24.0                                  | 22.0 | 28.9 | 29.1 |
| 2.                    | Lancaster               | ...  | ... | 67.7                                   | 62.8 | 60.1 | 61.4 | 28.3                                  | 30.6 | 34.0 | 33.8 |
| 3.                    | Fylde and Garstang      | ...  | ... | 33.5                                   | 25.6 | 24.1 | 21.5 | 44.5                                  | 51.9 | 48.5 | 49.8 |
| 4.                    | Preston and Chorley     | ...  | ... | 46.4                                   | 41.9 | 42.0 | 36.3 | 44.2                                  | 48.4 | 49.0 | 52.1 |
| 5.                    | Blackburn and Clitheroe | ...  | ... | 37.9                                   | 35.3 | 30.7 | 32.0 | 59.0                                  | 61.5 | 66.8 | 66.1 |
| 6.                    | Burnley                 | ...  | ... | 16.7                                   | 14.6 | 16.3 | 13.3 | 82.2                                  | 84.4 | 82.8 | 85.9 |
| 7.                    | Haslingden              | ...  | ... | 15.9                                   | 14.0 | 14.9 | 13.0 | 80.4                                  | 83.6 | 82.2 | 85.3 |
| 3.                    | Ormskirk                | ...  | ... | 64.3                                   | 66.8 | 64.9 | 64.0 | 28.2                                  | 26.1 | 28.5 | 27.9 |
| 9.                    | Wigan                   | ...  | ... | 32.5                                   | 25.7 | 26.8 | 26.0 | 61.3                                  | 66.2 | 64.9 | 68.1 |
| 10.                   | Bolton                  | ...  | ... | 34.4                                   | 31.4 | 30.8 | 29.8 | 62.5                                  | 66.5 | 66.2 | 64.8 |
| 11.                   | Rochdale and Bury       | ...  | ... | 23.6                                   | 20.2 | 17.9 | 16.7 | 68.5                                  | 71.7 | 74.7 | 73.5 |
| 12.                   | Preseot...              | ...  | ... | 68.3                                   | 66.9 | 61.1 | 59.2 | 27.8                                  | 29.6 | 34.7 | 34.4 |
| 13.                   | Leigh                   | ...  | ... | 32.8                                   | 30.0 | 27.7 | 26.0 | 64.4                                  | 67.0 | 69.9 | 71.6 |
| 14.                   | Barton-upon-Irwell      | ...  | ... | 43.3                                   | 41.2 | 39.3 | 43.1 | 42.7                                  | 46.0 | 48.8 | 47.6 |
| 15.                   | Oldham                  | ...  | ... | 24.2                                   | 22.8 | 19.2 | 19.9 | 72.8                                  | 74.3 | 77.5 | 77.3 |
| 16.                   | Ashton-under-Lyne       | ...  | ... | 16.4                                   | 13.6 | 13.7 | 14.6 | 74.8                                  | 78.2 | 79.8 | 79.0 |
| Administrative County |                         |      |     | 38.0                                   | 34.9 | 33.4 | 32.8 | 54.9                                  | 58.1 | 59.6 | 60.0 |

## PUBLIC VACCINATORS AND VACCINATION OFFICERS.

August, 1934.

## ULVERSTON. AREA No. 1.

| Public Vaccinator.      | District.                                                                                                                               | Vaccination Officer. | District.                                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W. G. Southern ...      | Broughton West, Angerton, Dunnerdale with Seathwaite, Kirkby Ireleth.                                                                   | J. Swainson ...      | Blawith, Claife, Coniston, Hawkshead, Satterthwaite, Skelwith, Subberthwaite, Torver, Angerton, Broughton West, Dunnerdale with Seathwaite, Kirkby Ireleth. |
| W. R. Penny ...         | Blawith, Haverthwaite (part), Egton-w-Newland, Lowick, Subberthwaite, Lands common to Lowick and Subberthwaite.                         |                      |                                                                                                                                                             |
| W. E. L. Allen...       | Claife, Hawkshead, Satterthwaite.                                                                                                       |                      |                                                                                                                                                             |
| R. F. C. H. Buchanan... | Coniston, Skelwith, Torver.                                                                                                             |                      |                                                                                                                                                             |
| F. J. Charlton ...      | Lower Allithwaite, Upper Allithwaite, Broughton East, Cartmell Fell, Grange, Lower Holker, Upper Holker, Haverthwaite (part), Staveley. | W. A. Swindle ...    | Lower Allithwaite, Upper Allithwaite, Broughton East, Cartmell Fell, Grange, Lower Holker, Upper Holker, Haverthwaite (part), Staveley.                     |
| R. H. Fothergill ...    | Aldingham, Dalton, Urswick, Lands common to Aldingham and Urswick.                                                                      | T. T. Woodburn ...   | Aldingham, Dalton, Urswick, Lands common to Aldingham and Urswick.                                                                                          |
| A. G. Petrie ...        | Mansriggs, Osmotherley, Pennington, Ulverston.                                                                                          | W. Dickinson...      | Ulverston, Colton, Egton, Lowick, Mansriggs, Osmotherley, Pennington, Lands common to Lowick and Haverthwaite, Subberthwaite (part).                        |
| G. W. Christie ...      | Ulverston Poor Law Inst.                                                                                                                |                      |                                                                                                                                                             |

## LANCASTER. AREA No. 2.

|                          |                                                                                                                                                |                        |                                                                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L. Mather ...            | Heaton-w-Oxcliffe, Lancaster B., Middleton, Overton, Laneaster Institution.                                                                    | Miss A. Dunderdale ... | Lancaster B, Aldcliffe, Ashton-w-Stodday, Cockerham, Cockersand Abbey, Ellel, Over Wyresdale, Scotforth, Thurnham.                                                                             |
| F. W. Moss ...           | Priest Hutton, Silverdale, Warton-w-Lindeth (except Dudley), Yealand Conyers, Yealand Redmayne.                                                | A. Ayer ...            | Bolton-le-Sands, Carnforth, Heaton-w-Oxcliffe, Middleton, Overton, Morecambe and Heysham B., Priest Hutton, Silverdale, Slyne-w-Hest, Warton - w - Lindeth, Yealand Conyers, Yealand Redmayne. |
| B. W. Hogarth ...        | Morecambe and Heysham B.                                                                                                                       |                        |                                                                                                                                                                                                |
| E. S. Jackson, junr. ... | Bolton-le-Sands, Carnforth, Slyne-with-Hest, Dudley (part of Warton), Borwick, Halton, Nether Kellet, Over Kellet.                             |                        |                                                                                                                                                                                                |
| W. Boys-Stones ...       | Aldcliffe, Ashton-w-Stodday, Cockerham, Cockersand Abbey, Ellel, Over Wyresdale, Scotforth, Thurnham.                                          |                        |                                                                                                                                                                                                |
| B. J. Acheson ...        | Caton, Claughton, Gressingham, Hornby, Melling, Roeburndale, Tatham, Wennington, Wray, Cantsfield, Arkholme, Quernmore, Luncsdale Institution. | W. Danson ...          | Lunesdale R.                                                                                                                                                                                   |
| R. G. Mathews ...        | Burrow-w-Burrow, Ireby, Leek, Tunstall, Whittington.                                                                                           |                        |                                                                                                                                                                                                |

## FYLDE AND GARSTANG. AREA No. 3.

|                  |                                                                                        |                 |                                                                                                                          |
|------------------|----------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------|
| R. Thursz ...    | Marton.                                                                                | J. A. Jump ...  | Marton.                                                                                                                  |
| J. K. Roger ...  | Flectwood B.                                                                           | J. Cardwell ... | Flectwood B., Carleton, Elswick, Hardhorn-w-Newton, Poulton, Singleton, Thornton Cleveleys, Little Eceleston-w-Larbreck. |
| J. K. Thomas ... | Poulton, Carleton, Singleton, Elswick, Hardhorn-w-Newton, Little Eceleston-w-Larbreck. |                 |                                                                                                                          |



FYLDE AND GARSTANG. AREA No. 3—*continued*.

| Public Vaccinator.       | District.                                                                                                                                                                    | Vaccination Officer. | District.                                                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A. H. Penistan ...       | Thornton Cleveleys.                                                                                                                                                          |                      |                                                                                                                                                                              |
| W. Haddow ...            | Medlar-w-Wesham, Freekleton, Kirkham, Clifton-w-Salwick, Newton-w-Seales, Treales, Roseacre and Wharles, Ribby-w-Wrea, Plumptions, Weeton-w-Preese, Greenhalgh-w-Thistleton. | J. P. Langley ...    | Kirkham, Medlar-w-Wesham, Freekleton, Clifton-w-Salwick, Newton-w-Seales, Treales, Roseacre and Wharles, Ribby-w-Wrea, Plumptions, Weeton-w-Preese, Greenhalgh-w-Thistleton. |
| H. M. Coope ...          | Lytham St. Anne's B, Bryning-w-Kellamergh, Westby, Warton.                                                                                                                   | R. J. Waring ...     | Lytham St. Anne's B., Bryning-w-Kellamergh, Westby, Warton.                                                                                                                  |
| H. R. Parkinson ...      | Wesham Institution, Kirkham Cottage Homes.                                                                                                                                   |                      |                                                                                                                                                                              |
| N. R. Ussher ...         | Barnacre-w-Bonds, Bleasdale, Cabus, Cloughton, Cleveleys, Forton, Garstang, Holleth, Nateby, Nether Wyresdale, Winmarleigh, Garstang Institution.                            | W. H. Barton ...     | Garstang R., Preesall.                                                                                                                                                       |
| A. Gibb ...              | Bilsborrow, Catterall, Gt. Eccleston, Kirkland, Inskip-w-Sowerby, Myerscough, Upper Raweliffe-w-Tarnacre.                                                                    |                      |                                                                                                                                                                              |
| S. A. Nield-Faulkner ... | Hambleton, Out Raweliffe, Pilling, Stalmine-w-Staynall, Preesall.                                                                                                            |                      |                                                                                                                                                                              |

## PRESTON AND CHORLEY. AREA No. 4.

|                       |                                                                                                                                   |              |                                                                |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------|
| D. J. Davies ...      | Samlesbury, Cuerdale, Ribbleton.                                                                                                  | H. Smith ... | Fulwood, Longridge, Walton-le-Dale, Preston R.                 |
| R. Slater ...         | Barton, Broughton, Fulwood, Lea, Ashton, Ingol and Cottam, Woodplumpton.                                                          |              |                                                                |
| E. W. Johnson ...     | Dutton, Ribchester Dilworth, Alston, Hothersall, Grim-sargh, Elston, Haigh-ton, Whittingham, Goos-nargh, Ribchester Institu-tion. |              |                                                                |
| S. Sharples ...       | Farington, Little Hoole, Muel Hoole, Hutton, Howick, Longton, Penwortham, Walton-le-Dale.                                         |              |                                                                |
| J. Rigby ...          | Chorley B., Charnock Richard, Coppull, Duxbury, Welch Whittle.                                                                    | T. Clare ... | Chorley B., Chorley R., Croston, Leyland, Withnell, Adlington. |
| C. M. Willmott ...    | Leyland, Cuerden, Euxton.                                                                                                         |              |                                                                |
| C. Peddie ...         | Clayton-le-Woods, Brindle, Heapey, Whittle-le-Woods.                                                                              |              |                                                                |
| T. W. P. Leighton ... | Hoghton, Wheelton, Withnell.                                                                                                      |              |                                                                |
| W. Taylor ...         | Croston, Bretherton, Eceles-ton, Heskin, Mawdesley, Ulmes Walton.                                                                 |              |                                                                |
| W. C. Rigby ...       | Rivington, Adlington, Ander-ton, Anglezarke, Heath Charnock.                                                                      |              |                                                                |
| W. Warburton ...      | Chorley Institution, Chil-dren's Homes.                                                                                           |              |                                                                |
| W. N. Chisholm ...    | Fulwood Institution.                                                                                                              |              |                                                                |

## BLACKBURN AND CLITHEROE. AREA No. 5.

| Public Vaccinator.    | Distriet.                                                                                                       | Vaccination Officer.     | Distriet.                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------|
| D. O'Driscoll ... ..  | Balderstone, Mellor, Clayton-le-Dale, Osbaldeston, Ramsgreave.                                                  | G. G. Dickinson ... ..   | Blackburn R., Church, Clayton-le-Moors, Darwen B., Great Harwood, Oswaldtwistle, Rishton. |
| J. B. Leigh ... ..    | Livesey, Pleasington, Witton.                                                                                   |                          |                                                                                           |
| W. A. Smith ... ..    | Darwen B., Toekholes, Eeeleshill, Yate and Pickup Bank.                                                         |                          |                                                                                           |
| P. H. Stewart ... ..  | Church and Oswaldtwistle.                                                                                       |                          |                                                                                           |
| J. P. Davidson ... .. | Clayton-le-Moors.                                                                                               |                          |                                                                                           |
| J. Ferguson ... ..    | Rishton.                                                                                                        |                          |                                                                                           |
| J. K. Cumming ... ..  | Great Harwood.                                                                                                  |                          |                                                                                           |
| H. B. Lawrie ... ..   | Billington, Dinekley, Salesbury, Wilpshire, Little Mitton, Henthorn and Coldcoats, Pendleton, Whalley, Wiswell. | J. Peters ... ..         | Little Mitton, Pendleton, Whalley, Wiswell.                                               |
| W. Kelly ... ..       | Aighton Bailey and Chaigley, Chipping, Little Bowland, Leagram, Thornton-w-Wheatley.                            | Mrs. A. Rawcliffe ... .. | Aighton Bailey and Chaigley, Chipping, Little Bowland, Leagram, Thornton-w-Wheatley.      |
| W. E. Barker ... ..   | Chatburn, Clitheroe B., Downham, Mearley, Twiston, Worston.                                                     | Mrs. M. A. Hargreaves    | Chatburn, Clitheroe B., Downham, Mearley, Twiston, Worston.                               |
| J. S. Cooper ... ..   | Clitheroe Institution.                                                                                          |                          |                                                                                           |

## BURNLEY. AREA No. 6.

|                          |                                                                                                                                 |                 |                                                                            |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------|
| A. M. Donaldson ... ..   | Briercliffe, Cliviger, Worsthorne-w-Hurstwood.                                                                                  | J. Clegg ... .. | Burnley R., Barrowford, Brierfield, Colne B., Nelson B., Padiham, Trawden. |
| J. Haworth ... ..        | Dunnoekshaw, Habergham Eaves, Ightenhill.                                                                                       |                 |                                                                            |
| W. Jackson ... ..        | Barley, Barrowford, Blacko, Brierfield, Goldshaw, Higham, Nelson B., Old Laund, Roughlee, Wheatley Carr Booth, Reedley Hallows. |                 |                                                                            |
| A. W. Eadie ... ..       | Colne B., Foulridge, Trawden.                                                                                                   |                 |                                                                            |
| J. W. J. Forsythe ... .. | Altham, Hapton, Northtown, Padiham, Read, Sabden, Simonstone.                                                                   |                 |                                                                            |

## HASLINGDEN. AREA No. 7.

|                         |                                       |                        |                |
|-------------------------|---------------------------------------|------------------------|----------------|
| D. G. Paterson ... ..   | Aeerington B. No. 1.                  | J. Parkinson ... ..    | Aeerington B.  |
| W. Mackie ... ..        | Aeerington B. No. 2.                  |                        |                |
| J. P. Brown ... ..      | Baeup B. (3 Wards).                   | J. H. Berry ... ..     | Baeup B.       |
| E. W. Falconer ... ..   | Baeup B. (3 Wards).                   |                        |                |
| R. J. Warrington ... .. | Rawtenstall B. No. 1.                 | F. J. Hobson ... ..    | Rawtenstall B. |
| M. Murchison ... ..     | Rawtenstall B. No. 2.                 |                        |                |
| W. M. Watson ... ..     | Haslingden B., Moorlands Institution. | H. L. Tomlinson ... .. | Haslingden B.  |



## ORMSKIRK. AREA No. 8.

| Public Vaccinator.      |  | District.                                                                                      | Vaccination Officer. |  | District.                                                                                                 |
|-------------------------|--|------------------------------------------------------------------------------------------------|----------------------|--|-----------------------------------------------------------------------------------------------------------|
| G. G. Rigby ... ..      |  | N. Meols, Scarisbrick (part).                                                                  | Mrs. L. Dandy ... .. |  | Hesketh, N. Meols, Rufford, Tarleton.                                                                     |
| W. P. O'Regan ... ..    |  | Aughton, Bickerstaffe, Burscough (part), Halsall, Lathom (part), Ormskirk, Scarisbrick (part). | N. Bottomley... ..   |  | Bickerstaffe, Bispham, Burscough, Lathom, Scarisbrick, Simonswood, Skelmersdale.                          |
| C. V. H. Nesbitt ... .. |  | Downholland, Lydiate, Maghull, Melling, Simonswood.                                            | N. C. Lyon ... ..    |  | Altcar, Aughton, Downholland, Halsall, Formby, Lydiate, Maghull, Melling, Ormskirk.                       |
| H. B. Wickham ... ..    |  | Bispham, Hesketh, Rufford, Tarleton.                                                           |                      |  |                                                                                                           |
| A. B. Sykes ... ..      |  | Altcar and Formby.                                                                             |                      |  |                                                                                                           |
| J. W. Pitt ... ..       |  | Burscough (part), Lathom (part).                                                               |                      |  |                                                                                                           |
| J. Graham ... ..        |  | Skelmersdale.                                                                                  |                      |  |                                                                                                           |
| H. C. Haslam Fox ... .. |  | Ormskirk Institution.                                                                          |                      |  |                                                                                                           |
| W. F. Jones ... ..      |  | Aintree.                                                                                       | J. C. Howarth ... .. |  | Netherton, Aintree.                                                                                       |
| J. F. Webb ... ..       |  | Great Crosby, Little Crosby, Waterloo, Ince Blundell, Lunt, Thornton.                          | R. W. Jackson ... .. |  | Seaforth, Waterloo, Great Crosby, Little Crosby, Ince Blundell, Thornton, Lunt, Sefton, Litherland, Ford. |
| J. C. Mann ... ..       |  | Litherland, Seaforth, Netherton, Ford, Sefton.                                                 |                      |  |                                                                                                           |

## WIGAN. AREA No. 9.

|                      |  |                                                           |                          |  |                                                           |
|----------------------|--|-----------------------------------------------------------|--------------------------|--|-----------------------------------------------------------|
| R. J. Ormsby ... ..  |  | Parbold, Shevington, Standish, Worthington, Wrightington. | J. H. Richards ... ..    |  | Parbold, Shevington, Standish, Worthington, Wrightington. |
| L. Unsworth ... ..   |  | Blackrod.                                                 | Miss M. G. Athron ... .. |  | Aspull, Haigh, Blackrod.                                  |
| R. A. Cooke ... ..   |  | Aspull, Haigh.                                            | (acting)                 |  |                                                           |
| M. J. Duffy ... ..   |  | Hindley (except Platt Bridge).                            | C. D. T. Mortimer ... .. |  | Abram, Ince - in - Makerfield, Hindley.                   |
| A. R. Erskine ... .. |  | Abram, Platt Bridge.                                      |                          |  |                                                           |
| H. Aspinall ... ..   |  | Ince-in-Makerfield.                                       | E. H. Boggis ... ..      |  | Ashton-in-Makerfield.                                     |
| G. A. Fulton ... ..  |  | Ashton-in-Makerfield.                                     | C. A. Mather ... ..      |  | Billinge and Winstanley, Orrell, Dalton, Upholland.       |
| J. T. Shirlaw ... .. |  | Dalton, Upholland.                                        |                          |  |                                                           |
| R. O. Mather ... ..  |  | Billinge and Winstanley.                                  |                          |  |                                                           |
| A. Matheson ... ..   |  | Orrell.                                                   |                          |  |                                                           |

## BOLTON. AREA No. 10.

|                       |  |                                            |                    |  |                                                                                  |
|-----------------------|--|--------------------------------------------|--------------------|--|----------------------------------------------------------------------------------|
| G. P. Alderson ... .. |  | Turton (excluding Belmont Ward), Edgworth. | J. Openshaw ... .. |  | Farnworth, Kearsley, Horwich, Little Hulton, Little Lever, Westhoughton, Turton. |
| H. Robinson ... ..    |  | Turton (Belmont Ward).                     |                    |  |                                                                                  |
| J. M. Stirling ... .. |  | Farnworth and Kearsley.                    |                    |  |                                                                                  |
| J. S. Sewell ... ..   |  | Horwich.                                   |                    |  |                                                                                  |
| J. H. Marsh ... ..    |  | Little Hulton (now part of Worsley).       |                    |  |                                                                                  |
| E. C. Racker ... ..   |  | Westhoughton.                              |                    |  |                                                                                  |
| W. Mottershead ... .. |  | Little Lever.                              |                    |  |                                                                                  |
| E. S. Gawne ... ..    |  | Townley's Hospital, Fishpool Institution.  |                    |  |                                                                                  |

## ROCHDALE AND BURY. AREA No. 11.

| Public Vaccinator. |     | District.                                | Vaccination Officer. |     | District.                                                       |
|--------------------|-----|------------------------------------------|----------------------|-----|-----------------------------------------------------------------|
| P. A. Ashcroft     | ... | Littleborough, Wardle.                   | T. Bradley           | ... | Littleborough, Wardle, Whitworth.                               |
| A. L. Pirrie       | ... | Whitworth.                               |                      |     |                                                                 |
| J. B. Scarr        | ... | Milnrow.                                 | P. Fairbank          | ... | Milnrow.                                                        |
| H. N. Crossley     | ... | Birch Hill Institution, Cottage Homes.   |                      |     |                                                                 |
| W. Greenlaw        | ... | Tottington, Ainsworth.                   | A. Walker            | ... | Ramsbottom, Walmersley, Tottington.                             |
| C. W. Crawshaw     | ... | Ramsbottom, Walmersley-cum-Shuttleworth. |                      |     |                                                                 |
| I. Flack           | ... | Radcliffe.                               | S. Mills             | ... | Radcliffe, Outwood, Whitefield, Unsworth, Ainsworth, Prestwich. |
| W. P. Ferguson     | ... | Whitefield, Outwood, Unsworth.           |                      |     |                                                                 |
| J. A. Jamieson     | ... | Prestwich.                               |                      |     |                                                                 |
| J. Boyd...         | ... | Heywood B., Birtle-cum-Bamford.          | A. Royds             | ... | Heywood B., Birtle-cum-Bamford.                                 |

## PRESCOT. AREA No. 12.

|                |     |                                                                                   |               |     |                                                                              |
|----------------|-----|-----------------------------------------------------------------------------------|---------------|-----|------------------------------------------------------------------------------|
| H. B. Bates    | ... | Eccleston (part).                                                                 |               |     |                                                                              |
| J. S. Fox      | ... | Windle.                                                                           | A. Griffin    | ... | Windle.                                                                      |
| G. E. Green    | ... | Eccleston(part),Huyton-with-Roby, Knowsley, Prescott, Rainhill, Tarbock, Whiston. | J. Hitchen    | ... | Eccleston, Huyton-with-Roby, Knowsley, Prescott, Rainhill, Tarbock, Whiston. |
| C. Nelson      | ... | Widnes B. (part), Halewood (part), Ditton.                                        | W. A. Hunter  | ... | Bold, Cronton, Hale, Halewood, Widnes B.                                     |
| J. W. Cheetham | ... | Bold, Cronton, Widnes B. (part).                                                  |               |     |                                                                              |
| F. C. Robbs    | ... | Hale, Halewood (part).                                                            |               |     |                                                                              |
| F. Prosser     | ... | Rainford, Kirkby.                                                                 | R. Fairelough | ... | Rainford, Kirkby.                                                            |
| G. G. W. Hay   | ... | Whiston Institution.                                                              |               |     |                                                                              |

## LEIGH. AREA No. 13.

|                 |     |                                                                                                                                                                          |             |     |                                                                                                                                                                       |
|-----------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| J. J. Jones     | ... | Leigh B. (part).                                                                                                                                                         | P. Barnes   | ... | Leigh B., Townships formerly comprising Leigh R, Atherton, Golborne, Tyldesley.                                                                                       |
| G. E. Hayward   | ... | Atherton.                                                                                                                                                                |             |     |                                                                                                                                                                       |
| T. Gray         | ... | Astley and Tyldesley.                                                                                                                                                    |             |     |                                                                                                                                                                       |
| J. D. Gallagher | ... | Leigh Institution.                                                                                                                                                       |             |     |                                                                                                                                                                       |
| J. Bennett      | ... | Cuerdley, Great Sankey, Penketh.                                                                                                                                         | E. Houghton | ... | Houghton, Arbury, Middleton, Poulton-w-Fearnhead, Rixton-w-Glazebrook, Southworth-w-Croft, Woolston-w-Martinicroft, Winwick-w-Hulme, Cuerdley, Penketh, Great Sankey. |
| R. B. Sephton   | ... | Houghton, Middleton, Arbury, Poulton-w-Fearnhead, Rixton-w-Glazebrook, Southworth-w-Croft, Woolston-w-Martinicroft, Culcheth, Leigh B. (part), Golborne, Lowton, Kenyon. |             |     |                                                                                                                                                                       |
| W. Valentine    | ... | Newton-in-Makerfield, Winwick-w-Hulme, Burtonwood.                                                                                                                       | R. L. Bent  | ... | Newton-in-Makerfield, Haydock, Burtonwood.                                                                                                                            |
| B. Coffey       | ... | Haydock.                                                                                                                                                                 |             |     |                                                                                                                                                                       |
| G. A. Sinclair  | ... | Padgate Cottage Homes.                                                                                                                                                   |             |     |                                                                                                                                                                       |
| J. D. Giles     | ... | Culcheth Cottage Homes.                                                                                                                                                  |             |     |                                                                                                                                                                       |



## BARTON-UPON-IRWELL. AREA No. 14.

| Public Vaccinator.    | District.                    | Vaccination Officer. | District.                                                                                                          |
|-----------------------|------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------|
| E. Kerr ... ..        | Eccles B.                    | B. A. Kinder ... ..  | Townships formerly comprising Barton R., Eccles B., Irlam, Stretford B., Swinton and Pendlebury, Urmston, Worsley. |
| C. Moffatt ... ..     | Irlam, Barton Moss.          |                      |                                                                                                                    |
| M. L. Poston ... ..   | Davyhulme, Flixton, Urmston. |                      |                                                                                                                    |
| W. T. Westwood ... .. | Stretford B. (part).         |                      |                                                                                                                    |
| J. T. Walker ... ..   | Stretford B. (part).         |                      |                                                                                                                    |
| J. P. Williams ... .. | Swinton, Clifton.            |                      |                                                                                                                    |
| W. J. Cowan ... ..    | Worsley (old area).          |                      |                                                                                                                    |
| D. W. Davidson ... .. | Green Lane Institution.      |                      |                                                                                                                    |
| T. M. Popple ... ..   | Pendlebury.                  | C. F. Settle ... ..  | Pendlebury.                                                                                                        |

## OLDHAM. AREA No. 15.

|                      |              |                  |                                                         |
|----------------------|--------------|------------------|---------------------------------------------------------|
| J. H. Burns ... ..   | Chadderton.  | H. Brabin ... .. | Chadderton, Crompton, Middleton B., Royton, Failsworth. |
| E. P. Maitland... .. | Crompton.    |                  |                                                         |
| H. W. McH. Wallace   | Middleton B. |                  |                                                         |
| R. P. Parker ... ..  | Royton.      |                  |                                                         |
| E. Barnes ... ..     | Failsworth.  |                  |                                                         |

## ASHTON-UNDER-LYNE. AREA No. 16.

|                      |                                                            |                        |                                                                       |
|----------------------|------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|
| J. W. Ford ... ..    | Droylsden, Little moss, Woodhouses, Audenshaw (part).      | J. B. Higginbottom ... | Audenshaw, Droylsden, Bardsley, Little moss, Waterloo and Woodhouses. |
| J. S. MacGill ... .. | Denton, Audenshaw (part).                                  | C. Barber ... ..       | Denton.                                                               |
| B. Bowman ... ..     | Ashton-under-Lyne B. (part), Bardsley, Hurst and Waterloo. | H. B. Firth ... ..     | Ashton-under-Lyne B.                                                  |
| C. H. Spencer ... .. | Ashton-under-Lyne B. (part).                               |                        |                                                                       |
| T. D. Hunter ... ..  | Alt and Lees.                                              |                        |                                                                       |
| H. A. Logan ... ..   | Hartshead, Mossley B.                                      | J. Cooper ... ..       | Mossley B., Alt, Hartshead, Lees.                                     |
| W. E. C. Thomas ...  | Darnton House (Institution), Lake Hospital.                |                        |                                                                       |

## PUBLIC HEALTH OFFICERS OF THE COUNTY AND OF LOCAL AUTHORITIES.

## COUNTY PUBLIC HEALTH STAFF.

(Jointly with the School Medical and Child Welfare Department).

**County Medical Officer of Health and School Medical Officer :**

J. J. BUTTERWORTH, M.D., Ch.B., D.P.H.

**Chief Assistant County Medical Officers :**

F. HALL, M.D., Ch.B., D.P.H., Barrister-at-Law.

E. H. SCHOLEFIELD, M.A., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.

**Assistant County Medical Officers :**

G. V. ASHCROFT, M.D., Ch.B., M.R.C.P., D.P.H.  
 L. E. H. R. BARKER, B.A., M.B., Ch.B., D.P.H.  
 R. J. BATTY, B.Sc., M.D., Ch.B., D.P.H.  
 W. C. V. BROTHWOOD, M.D., Ch.B., M.M., D.P.H.  
 CATHERINE L. CORBETT, M.B., Ch.B., D.P.H.  
 A. C. CRAWFORD, M.B., Ch.B., D.P.H., D.T.M.  
 R. W. ELDRIDGE, B.Sc., M.D., Ch.B., M.R.C.S.,  
 L.R.C.P., D.P.H.  
 S. C. GAWNE, B.Sc., M.D., B.S., M.R.C.S.,  
 L.R.C.P., D.P.H.  
 WINNIEFRED M. GRAY, M.A., M.B., Ch.B.,  
 D.P.H.

GLADYS H. HUTCHINSON, M.B., Ch.B.  
 J. R. JAGGER, M.B., Ch.B., D.P.H.  
 G. G. JOHNSTONE, M.C., M.A., M.D., B.Ch.,  
 D.P.H.  
 J. H. PORTER, M.A., M.B., Ch.B., M.R.C.S.,  
 L.R.C.P., D.P.H.  
 A. V. STOCKS, M.A., M.B., B.Ch., D.P.H.  
 J. A. TOMB, M.B., Ch.B., D.P.H.  
 C. ROBERTSON WILSON, M.B., Ch.B., D.P.H.  
 G. G. WRAY, M.D., Ch.B., D.P.H.  
 S. N. WRIGHT, M.Sc., M.B., Ch.B., D.P.H.

**Dental Surgeons :**

R. ACKERS, L.D.S.  
 H. J. APPLEYARD, L.R.C.P., L.R.C.S., L.D.S.  
 MARGARET E. CALDWELL, L.D.S.  
 J. B. DAVIES, L.D.S.  
 F. J. W. DEWHURST, L.D.S.  
 R. E. HODGSON, B.D.S.  
 J. KERSHAW, L.M.S.S.A., L.D.S.  
 W. A. LINNELL, L.D.S.  
 T. G. LLOYD, L.D.S.

I. F. McASH, L.R.C.P., L.R.C.S., L.R.F.P.S.,  
 H.D.D., L.D.S.  
 F. D. MANNERS, L.D.S.  
 E. V. POLLITT, L.D.S.  
 A. W. POOLE, L.D.S.  
 A. E. SHAW, B.D.S.  
 T. H. WIGNALL, L.D.S.  
 F. W. WILLIAMS, B.D.S.  
 A. CLEAVER, L.D.S. (part-time).

**Ophthalmic Surgeons (part-time) :**

E. ALLAN, M.B., Ch.B.  
 H. H. BYWATER, M.D., Ch.B., D.Ch.O.,  
 F.R.C.S. (Edin.).  
 O. M. DUTHIE, M.D., Ch.B.  
 G. A. JELLY, F.R.C.S., L.R.C.P., L.S.A., D.P.H.  
 N. MACINNES, M.A., M.B., Ch.B.  
 J. M. MORRISON, M.B., Ch.B.  
 H. G. PARKER, F.R.C.S., (Edin.) L.R.C.P.,  
 L.R.F.P.S. (Deceased, February, 1933).

J. F. PENMAN, M.B., Ch.B. (Deceased, May,  
 1933).  
 G. E. PLOWRIGHT, M.B., Ch.B., D.O.M.S.  
 G. A. RENWICK, M.B., Ch.M.  
 T. SNOWBALL, M.A., M.B., Ch.B.  
 W. SYKES, L.R.C.P., L.R.C.S., L.R.F.P.S.  
 J. M. WISHART, M.B., Ch.B., F.R.C.S. (Edin.)

**Orthopædic Surgeons (part-time) :**

H. PLATT, M.D., M.S., F.R.C.S.

T. P. McMURRAY, M.Ch., F.R.C.S. (Edin.).

**Assistant Orthopædic Surgeons (part-time) :**

E. S. BRETNALL, M.B., F.R.C.S. (Edin.)  
 B. L. MCFARLAND, M.D., M.Ch. (Orth.), F.R.C.S.  
 (Edin.).

S. M. MILNER, M.A., M.B., F.R.C.S.  
 H. POSTON, M.B., M.Ch.  
 H. BELL, M.B., B.Ch., M.Ch. (Orth.)  
 (Appointed 1st August, 1933).

**Consultant Obstetrician (Litherland Clinic) :**

J. W. BURNS, M.D., F.R.C.S. (Edin.).

**Biddulph Grange Orthopædic Hospital—Senior House Surgeon :**

C. H. GRAY, B.Sc., M.B., Ch.B., M.R.C.S.,  
 L.R.C.P. (Appointed 1st August, 1933)

FRANCES A. ROBERTS, M.B., Ch.B.  
 (Resigned 31st July, 1933).

**Junior House Surgeons :**

DILIAS MACLEAN, M.B., Ch.B. (Resigned 31st  
 July, 1933).

H. C. PALIN, M.B., Ch.B. (Appointed 21st  
 August, 1933, resigned, 28th Feb., 1934).

ANNIE LAWSON, M.R.C.S., L.R.C.P. (Appointed 1st March, 1934).

**Matron :**

Miss M. ROCHELL.

**County Sanitary Officers :**

A. T. EGINTON, F.S.I. (Chief).  
 R. KEELEY.

J. MERCER.  
 T. PICKERING.

**Principal Clerk, and County Inspector, Shops Acts :**

J. E. GEE.

**County Inspector of Midwives :**

Miss E. J. B. WRIGHT.

**Organiser and Lecturer under Venereal Diseases Scheme**

(In co-operation with the British Social Hygiene Council):

Miss M. M. TIPPER.

**30 Veterinary Surgeons (part-time)**

(For purposes of the Milk and Dairies Act).

**64 School Nurses and/or Health Visitors.****4 Orthopædic Nurses.****County Analyst :**

G. D. ELSDON, B.Sc., F.I.C.



## PUBLIC HEALTH OFFICERS OF LOCAL AUTHORITIES.

August, 1934.

| URBAN DISTRICT.         | Public Health Officers.                                                                                                                               | URBAN DISTRICT.       | Public Health Officers.                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| Abram ... ..            | M.O. A. R. Erskine.<br>S.I. H. Allen.                                                                                                                 | Croston ... ..        | M.O. A. Duckworth.<br>S.I. H. W. Chadwick.                                                                          |
| Accrington (B) ...      | M.O. A. Greenhalgh.<br>S.I. J. A. Hindle.<br>S.I. J. E. Spencer.<br>S.I. J. R. Woodcock.<br>H.V. 1.                                                   | Dalton-in-Furness ... | M.O. G. H. Patterson (whole<br>time with Grange,<br>Ulverston, and Ulver-<br>ston R).<br>S.I. W. E. Caine.          |
| Adlington ... ..        | M.O. W. C. Rigby.<br>S.I. T. Warwick.                                                                                                                 | Darwen (B) ... ..     | M.O. J. Robertson (whole<br>time).<br>S.I. C. R. Walsh.<br>S.I. F. Littlecott.<br>S.I. E. P. McGlynn.<br>H.V. 2.    |
| Ashton-in-Makerfield    | M.O. H. Winstanley.<br>S.I. D. Gamble.<br>S.I. T. Whitter.<br>H.V. 1.                                                                                 | Denton ... ..         | M.O. W. Stewart.<br>S.I. A. C. Brocklehurst.<br>H.V. 1.                                                             |
| Ashton-under-Lyne (B)   | M.O. J. W. Talent (whole<br>time).<br>S.I. C. S. Handforth.<br>S.I. T. C. Ward.<br>H.V. 4.                                                            | Droylsden ... ..      | M.O. A. W. Laing.<br>S.I. J. P. Kershaw.                                                                            |
| Aspull ... ..           | M.O. R. A. Cooke.<br>S.I. J. Eccleshaw.                                                                                                               | Eccles (B) ... ..     | M.O. J. E. Spence (whole<br>time).<br>S.I. G. V. Hulse.<br>S.I. H. R. Taylor.<br>S.I. K. F. Johnson.<br>H.V. 5.     |
| Atherton ... ..         | M.O. W. H. Leigh.<br>S.I. F. Markland.                                                                                                                | Failsworth ... ..     | M.O. P. J. Webb.<br>S.I. J. A. James.<br>H.V. 1.                                                                    |
| Audenshaw ... ..        | M.O. W. P. T. Daniel.<br>S.I. H. M. Doxey.                                                                                                            | Farnworth ... ..      | M.O. A. G. Glass (whole time<br>with Kearsley).<br>S.I. H. T. Ogden.<br>S.I. D. Davies.<br>S.I. S. Seel.<br>H.V. 2. |
| Bacup (B) ... ..        | M.O. J. W. McKinney.<br>S.I. A. E. Barnes.<br>H.V. 2.                                                                                                 | Flectwood (B) ...     | M.O. J. Colgan.<br>S.I. G. Pilkington.<br>S.I. A. Dale.<br>S.I. A. H. Johnstone.                                    |
| Barrowford ... ..       | M.O. R. G. Markham (whole<br>time with Nelson B).<br>S.I. W. S. Green.                                                                                | Formby ... ..         | M.O. M. G. Garry.<br>S.I. J. Hodge.                                                                                 |
| Billinge and Winstanley | M.O. J. S. Mather.<br>S.I. J. J. Perkins.                                                                                                             | Fulwood ... ..        | M.O. C. J. Trimble.<br>S.I. F. Higginson.                                                                           |
| Blackrod ... ..         | M.O. J. W. Unsworth.<br>S.I. A. Coule (A. Gillibrand<br>to 30th June 1934).                                                                           | Golborne ... ..       | M.O. J. Bennett.<br>S.I. A. Clough (to 1st Oct.,<br>1933).<br>S.I. J. Monks.<br>H.V. 1.                             |
| Brierfield ... ..       | M.O. J. S. Wilson.<br>S.I. W. D. Haigh.<br>H.V. 1.                                                                                                    | Grange-over-Sands ... | M.O. G. H. Patterson (whole<br>time with Dalton,<br>Ulverston, and Ulver-<br>ston R).<br>S.I. T. Huddlestone.       |
| Carnforth ... ..        | M.O. E. S. Jackson.<br>S.I. F. Holt.                                                                                                                  | Great Crosby ... ..   | M.O. A. J. W. Cunningham.<br>S.I. J. Almond.                                                                        |
| Chadderton ... ..       | M.O. J. Wood (whole time).<br>S.I. A. Ashworth.<br>S.I. H. Prenton.<br>H.V. 2.                                                                        | Great Harwood ...     | M.O. J. K. Cumming.<br>S.I. A. Eddleston.<br>H.V. 1.                                                                |
| Chorley (B) ... ..      | M.O. A. Anderson (whole<br>time).<br>S.I. W. Heaps (to 16th Aug.,<br>1933).<br>S.I. R. P. B. Lund.<br>H.V. 2.                                         | Haslingden (B) ...    | M.O. W. M. Martin.<br>S.I. R. Austin.<br>S.I. A. Warburton.<br>H.V. 1.                                              |
| Church ... ..           | M.O. F. W. Pare.<br>S.I. F. Howarth.                                                                                                                  | Haydock ... ..        | M.O. A. Dowling.<br>S.I. J. Evans.                                                                                  |
| Clayton-le-Moors ...    | M.O. L. Tattersall.<br>S.I. J. H. Bridge.                                                                                                             | Heywood (B) ...       | M.O. J. Brooks (whole time)<br>S.I. J. E. Cropper.<br>H.V. 3.                                                       |
| Clitheroe (B) ... ..    | M.O. W. E. Barker.<br>S.I. J. Bolton.<br>H.V. 1.                                                                                                      |                       |                                                                                                                     |
| Colne (B) ... ..        | M.O. J. W. Starkey (whole<br>time) (G. M. D. Lobban<br>to 30th April, 1934).<br>S.I. A. Fortune.<br>S.I. R. R. Overend.<br>S.I. C. Duerden<br>H.V. 2. |                       |                                                                                                                     |
| Crompton ... ..         | M.O. K. D. Murchison.<br>S.I. F. Taylor.                                                                                                              |                       |                                                                                                                     |

PUBLIC HEALTH OFFICERS OF LOCAL AUTHORITIES—*continued.*

| URBAN DISTRICT.               | Public Health Officers.                                                                                                          | URBAN DISTRICT.        | Public Health Officers.                                                                                                                                                                           |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hindley ... ..                | M.O. R. K. Nisbet (whole time).<br>S.I. T. France.<br>H.V. 1.                                                                    | Mossley (B) ... ..     | M.O. L. White.<br>S.I. E. Slater.<br>S.I. H. B. Bell.<br>H.V. 1.                                                                                                                                  |
| Horwich ... ..                | M.O. J. S. Sewell.<br>S.I. C. Coop.<br>H.V. 2.                                                                                   | Nelson (B) ... ..      | M.O. R. G. Markham (whole time with Barrowford).<br>S.I. J. W. Ingham.<br>S.I. S. Grindrod.<br>S.I. S. Haydock.<br>H.V. 2.                                                                        |
| Huyton-with-Roby ...          | M.O. A. W. McDonald.<br>S.I. H. Gorton.                                                                                          | Newton-in-Makerfield   | M.O. H. E. Watkins.<br>S.I. H. Ashcroft.<br>H.V. 1.                                                                                                                                               |
| Ince-in-Makerfield ...        | M.O. G. H. Potter.<br>S.I. W. Thorpe.<br>H.V. 2.                                                                                 | Ormskirk ... ..        | M.O. J. Young.<br>S.I. N. W. Chadwick (E. J. Wright and T. Burrows to 31st July, 1934).                                                                                                           |
| Irlam ... ..                  | M.O. J. W. Roberts.<br>S.I. R. Rutter.<br>S.I. W. Whitfield.                                                                     | Orrell ... ..          | M.O. K. Fraser.<br>S.I. B. Preston.                                                                                                                                                               |
| Kearsley ... ..               | M.O. A. G. Glass (whole time with Farnworth).<br>S.I. F. Brook (E. Shaw to 30th Sept., 1933).                                    | Oswaldtwistle ...      | M.O. H. Conway.<br>S.I. P. J. Fisher.                                                                                                                                                             |
| Kirkham ... ..                | M.O. W. Haddow.<br>S.I. J. R. Hohnes.                                                                                            | Padiham ... ..         | M.O. J. W. J. Forsythe.<br>S.I. G. Egner.                                                                                                                                                         |
| Lancaster (B)... ..           | M.O. J. D. Buchanan (whole time)<br>S.I. H. Scholefield.<br>S.I. W. W. Jackson.<br>S.I. W. Combey.<br>H.V. 4.                    | Poulton-le-Fylde ...   | M.O. J. K. Thomas.<br>S.I. W. G. Woolley.                                                                                                                                                         |
| Lees ... ..                   | M.O. J. Currie.<br>S.I. H. Boardman.                                                                                             | Preesall ... ..        | M.O. S. A. Nield-Faulkner.<br>S.I. H. Turner.                                                                                                                                                     |
| Leigh (B) ... ..              | M.O. J. C. Beckett (whole time).<br>S.I. E. Jackson.<br>S.I. W. T. Frost.<br>S.I. A. N. Nicklin.<br>S.I. J. Blakeley.<br>H.V. 6. | Prescot ... ..         | M.O. S. M. Green.<br>S.I. R. A. Bull (J. E. Hart to 31st Jan., 1934).                                                                                                                             |
| Leyland ... ..                | M.O. C. M. Willmott.<br>S.I. H. Cheetham.                                                                                        | Prestwich ... ..       | M.O. H. C. Burbidge.<br>S.I. L. T. J. Trippier.<br>S.I. S. Smith.                                                                                                                                 |
| Litherland ... ..             | M.O. T. D. Williams.<br>S.I. H. Harrison.                                                                                        | Radcliffe ... ..       | M.O. W. S. Haydock (whole time).<br>S.I. W. Holt.<br>H.V. 3.                                                                                                                                      |
| Littleborough... ..           | M.O. J. T. R. MacGill.<br>S.I. H. E. Williamson.                                                                                 | Rainford ... ..        | M.O. F. Prosser.<br>S.I. E. S. Rosbotham.                                                                                                                                                         |
| Little Lever ... ..           | M.O. W. Mottershead.<br>S.I. T. Grant.                                                                                           | Ramsbottom ... ..      | M.O. H. Lawrie.<br>S.I. H. Barlow.<br>H.V. 1.                                                                                                                                                     |
| Longridge ... ..              | M.O. E. W. Johnson.<br>S.I. J. Marshall.                                                                                         | Rawtenstall (B) ...    | M.O. K. K. Wood (whole time) (J. E. Helm to 13th May, 1933).<br>S.I. W. E. Hoyle.<br>H.V. 2.                                                                                                      |
| Lytham Saint Anne's(B)        | M.O. J. P. Litt (whole time).<br>S.I. H. Yates.<br>S.I. F. Haworth.<br>H.V. 2.                                                   | Rishton ... ..         | M.O. J. Ferguson (J. Barr to 30th April, 1933).<br>S.I. C. Woodcock.                                                                                                                              |
| Middleton (B) ... ..          | M.O. S. T. Beggs (whole time).<br>S.I. T. Turner.<br>S.I. S. Hacking.<br>H.V. 3.                                                 | Royton ... ..          | M.O. W. L. Bentley.<br>S.I. J. Butterfield.<br>H.V. 1.                                                                                                                                            |
| Milnrow ... ..                | M.O. O. R. I. Love.<br>S.I. T. Warrington.                                                                                       | Skelmersdale ... ..    | M.O. H. E. Marsden (whole time with West Lancashire R.)<br>S.I. E. Huntington.                                                                                                                    |
| Morecambe and Heysham (B) ... | M.O. J. W. Watterson.<br>S.I. H. Morgans.<br>S.I. W. S. Makin.<br>S.I. T. H. Ashbrook.                                           | Standish-with-Langtree | M.O. R. J. Ormsby.<br>S.I. A. A. Smith.                                                                                                                                                           |
|                               |                                                                                                                                  | Stretford (B) ... ..   | M.O. E. H. Walker (whole time).<br>S.I. S. Massey.<br>S.I. T. E. Bowker.<br>S.I. H. Wrigley.<br>S.I. A. Markland.<br>S.I. L. F. Atherton.<br>S.I. G. A. Farrow.<br>S.I. Miss McGarvie.<br>H.V. 4. |



PUBLIC HEALTH OFFICERS OF LOCAL AUTHORITIES—*continued.*

| URBAN DISTRICT.            | Public Health Officers.                                                                                                              | URBAN DISTRICT.     | Public Health Officers.                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------|
| Swinton and Pendlebury ... | M.O. G. H. Hogben (whole time).<br>S.I. P. E. Berry.<br>S.I. L. A. Marshall.<br>S.I. A. S. Kershaw.<br>S.I. G. K. Taylor.<br>H.V. 3. | Worsley ... ..      | M.O. T. E. Fliteroft (T. E. Kavanagh to 31st March, 1934).<br>S.I. W. Allen.                                           |
| Thornton Cleveleys ...     | M.O. A. H. Penistan.<br>S.I. H. Fenton.                                                                                              | RURAL DISTRICT.     |                                                                                                                        |
| Tottlington ... ..         | M.O. G. Crawshaw.<br>S.I. L. Kenyon.<br>S.I. J. S. Smithie (part time).                                                              | Blackburn ... ..    | M.O. C. M. Bradley.<br>S.I. H. Eccleston.                                                                              |
| Trawden ... ..             | M.O. W. Alexander.<br>S.I. J. H. Tatham.                                                                                             | Burnley ... ..      | M.O. H. J. Robinson.<br>S.I. A. Johnson.                                                                               |
| Turton ... ..              | M.O. H. Robinson.<br>S.I. A. McMorrine.                                                                                              | Chorley ... ..      | M.O. J. Rigby.<br>S.I. H. F. Froes.<br>S.I. A. Fowler.                                                                 |
| Tyldesley ... ..           | M.O. T. E. Fliteroft.<br>S.I. G. Yates.<br>H.V. 1.                                                                                   | Clitheroe ... ..    | M.O. J. M. Postlethwaite.<br>S.I. W. H. Jackson.                                                                       |
| Ulverston ... ..           | M.O. G. H. Patterson (whole time with Dalton, Grange, and Ulverston R).<br>S.I. C. T. Hague.                                         | Fylde ... ..        | M.O. W. Haddow.<br>S.I. F. S. Roscoe.                                                                                  |
| Upholland ... ..           | M.O. F. H. Browne.<br>S.I. A. Hunt.<br>S.I. K. G. Hunt.<br>H.V. 1.                                                                   | Garstang ... ..     | M.O. N. R. Ussher.<br>S.I. J. Cook.<br>S.I. J. B. Cook.                                                                |
| Urmston ... ..             | M.O. D. W. Davidson.<br>S.I. R. G. Child.<br>S.I. R. N. Penlington.<br>S.I. (J. Heath to 31st Jany., 1933).                          | Lancaster ... ..    | M.O. W. Edmondson.<br>S.I. J. Littlefair.<br>S.I. A. Halhead.                                                          |
| Walton-le-Dale ...         | M.O. C. J. Trimble.<br>S.I. N. Baron.                                                                                                | Limehurst ... ..    | M.O. G. F. Bowman.<br>S.I. R. Thompson.                                                                                |
| Wardle ... ..              | M.O. D. G. MacGill.<br>S.I. E. A. Stewart.                                                                                           | Lunesdale ... ..    | M.O. B. J. Acheson.<br>S.I. E. Ellis.                                                                                  |
| Waterloo-with-Seaforth     | M.O. V. J. Glover.<br>S.I. J. H. Cannell.<br>S.I. A. E. Jones.<br>H.V. 2.                                                            | Preston ... ..      | M.O. C. J. Trimble.<br>S.I. T. Ashcroft.<br>S.I. H. Collier.                                                           |
| Westhoughton ...           | M.O. W. H. Leigh.<br>S.I. J. C. Almond.<br>S.I. F. J. A. Green (part time).<br>H.V. 2.                                               | Ulverston ... ..    | M.O. G. H. Patterson (whole time with Dalton, Grange, and Ulverston U.D.)<br>S.I. T. Hudson.<br>S.I. J. F. A. Ellwood. |
| Whitefield ... ..          | M.O. A. J. Young.<br>S.I. B. Hodgson.                                                                                                | Warrington ... ..   | M.O. J. Bennett.<br>S.I. F. W. Kerfoot.                                                                                |
| Whitworth ... ..           | M.O. T. J. L. Forbes.<br>S.I. J. J. Cordingley.                                                                                      | West Lancashire ... | M.O. H. E. Marsden (whole time with Skelmersdale).<br>S.I. T. G. H. Hunter.<br>S.I. J. Ainsworth.                      |
| Widnes (B) ... ..          | M.O. A. Jones (whole time).<br>S.I. J. G. Macdonald.<br>S.I. C. A. Pennington.<br>S.I. E. F. Starkey.<br>H.V. 7.                     | Whiston ... ..      | M.O. T. U. Mercer.<br>S.I. W. H. Bone.<br>S.I. C. G. Hitchin.                                                          |
| Withnell ... ..            | M.O. T. P. Leighton.<br>S.I. A. Penney.                                                                                              | Wigan ... ..        | M.O. R. J. Ormsby.<br>S.I. E. A. Lyne.                                                                                 |

**PAYMENTS TOWARDS SALARIES OF PUBLIC HEALTH OFFICERS.**—Under the Third Schedule (3) of the Local Government Act, 1929, payments towards the salaries of public health officials are made by the County Council to the Councils of 19 boroughs, 78 urban districts, 17 rural districts, and two port sanitary districts. The total payments during the financial year ended March 31st, 1934, amounted to £29,254 6s. 7d., of which £10,163 16s. 4d. was in respect of Medical Officers of Health, and £19,090 10s. 3d. for Sanitary Inspectors. Contributions towards the salaries of Medical Officers of Health are made to all districts, and as regards Sanitary Inspectors to all districts except Trawden and Upholland.

**VETERINARY OFFICERS.**—It is stated that in thirty-six districts the part-time services of veterinary surgeons are available, by arrangement, for the inspection of dairy cows, &c., other than as required by the Tuberculosis Order. In 8 districts an annual retaining fee is paid; in the remaining districts remuneration is by way of fees.

For the purposes of the Milk and Dairies (Consolidation) Act, 1915, in connection with the inspection of cattle in cases where tubercle bacilli have been found in milk, the County Council employ, as required, 30 Veterinary Surgeons resident in different parts of the County area. These Veterinary Surgeons are also employed by the County Council for the purposes of the Diseases of Animals Acts. Their work under the Milk and Dairies Act is referred to on page 135.

**Professional Nursing in the Home.**—(A) GENERAL. (B) FOR INFECTIOUS DISEASES.—From the replies given by local Medical Officers of Health as to the nature of arrangements made by the Local Authority in the district for (a) general nursing, and (b) for infectious diseases, *e.g.* measles, etc., it appears that in very few areas are arrangements made by the authority for general nursing. The work of District Nursing Associations is referred to in the paragraph below. For the nursing of infectious cases, the following local authorities, amongst others, are willing to provide nursing assistance, if required :—Atherton, Barrowford, Chorley (B), Colne (B), Darwen (B), Great Crosby, Heywood (B), Lancaster (B), Middleton (B), Morecambe and Heysham (B), Nelson (B), Orrell, Oswaldtwistle, Padiham, Rawtenstall (B), Swinton and Pendlebury, Urnston, Widnes (B), etc. In a number of districts the Health Visitors, it is stated, undertake the nursing of cases such as measles, whooping cough, puerperal fever, and ophthalmia neonatorum.

In 70 districts, it is stated, the local authorities contribute to voluntary hospitals.

**District Nursing Associations.**—In 102 County districts, 227 nurses are employed by District Nursing Associations; in 73 of these districts the Association is affiliated to the Lancashire County Nursing Association. Financial assistance is given by the Local Authority to the Nursing Association in the following districts :—Ashton-in-Makerfield, 2/6 per visit; Ashton-under-Lyne (B), £50 per annum; Atherton, £100 p.a.; Audenshaw, £10 p.a.; Barrowford £25 p.a. and 1/- per visit; Carnforth, £20 p.a.; Chadderton, 10/- per case; Chorley (B), £30 p.a.; Church £5 p.a.; Colne (B), £400 p.a. to the Hartley Hospital, whose staff undertakes district nursing; Croston, £25 p.a.; Darwen (B), £10 10s. p.a. and 1/- per visit; Droylsden, £10 p.a.; Farnworth, £10 10s. p.a. and 1/6 per visit; Great Crosby, £100 p.a.; Huyton-with-Roby, £10 p.a.; Lancaster (B), £75 for midwifery and £60 for home nursing; Little Lever, £13 13s. p.a.; Middleton (B), £20 p.a.; Morecambe and Heysham (B), £25 p.a.; Nelson (B), £10 p.a. retaining fee, £18 p.a. contribution, and 1/- per visit; Newton-in-Makerfield, £20 p.a.; Oswaldtwistle, £10 p.a.; Padiham, £50 p.a.; Radcliffe, £12 12s. p.a.; Rainford, £10 p.a.; Rawtenstall (B), 4d. per visit to children under five years of age; Upholland, £50 p.a.; Wardle, £10 p.a.; Whitworth, £5 p.a.; Widnes (B), £50 p.a.; Worsley, £8 8s. p.a.; Whiston (R), £3 3s. p.a., etc. In 1933 the County Council made grants amounting to the sum of £1,037 to the County and District Nursing Associations; other County grants to Nursing Associations are referred to on page 218.

**LANCASHIRE COUNTY NURSING ASSOCIATION.**—The following information has been supplied by the Superintendent of the Lancashire County Nursing Association :—

|                                                                                    |     |
|------------------------------------------------------------------------------------|-----|
| No. of local Nursing Associations affiliated to the County Nursing Association ... | 147 |
| No. of Nurses employed by the affiliated local associations ... ..                 | 198 |

The following tabular statement shows the number of visits, etc., paid by Nurses of the Lancashire County Nursing Association to "public health" cases in the Administrative County during the year 1933 :—



| Name of Disease.                                              | Total<br>Number<br>of cases<br>nursed. | No. of<br>visits. | Number<br>conval-<br>escent. | Number<br>sent to<br>hospital. | Number<br>died<br>at home. | Number<br>removed<br>from<br>books<br>for<br>other<br>causes. | Number<br>remaining<br>on<br>books. |
|---------------------------------------------------------------|----------------------------------------|-------------------|------------------------------|--------------------------------|----------------------------|---------------------------------------------------------------|-------------------------------------|
| Pneumonia (except bronchial<br>or complicating measles) ...   | 1,018                                  | 17,264            | 669                          | 79                             | 225                        | 13                                                            | 32                                  |
| Tuberculosis (all cases) ...                                  | 195                                    | 7,801             | 48                           | 20                             | 78                         | 14                                                            | 35                                  |
| Complications of pregnancy ...                                | 90                                     | 1,302             | 64                           | 18                             | 2                          | 4                                                             | 2                                   |
| Puerperal pyrexia and puer-<br>peral fever ... ..             | 14                                     | 445               | 10                           | 4                              | —                          | —                                                             | —                                   |
| Other complications occurring<br>after childbirth ... ..      | 65                                     | 1,648             | 57                           | 3                              | 3                          | —                                                             | 2                                   |
| Influenza (uncomplicated) ...                                 | 677                                    | 6,512             | 651                          | 9                              | 8                          | 7                                                             | 2                                   |
| Measles ... ..                                                | 98                                     | 330               | 97                           | —                              | —                          | 1                                                             | —                                   |
| Measles with pneumonia ...                                    | 7                                      | 64                | 6                            | —                              | 1                          | —                                                             | —                                   |
| Ophthalmia neonatorum ...                                     | 25                                     | 532               | 22                           | —                              | 2                          | 1                                                             | —                                   |
| Chicken-pox ... ..                                            | 10                                     | 38                | 10                           | —                              | —                          | —                                                             | —                                   |
| Whooping cough ... ..                                         | 17                                     | 130               | 12                           | —                              | 3                          | 1                                                             | 1                                   |
| Infantile diarrhœa ... ..                                     | 22                                     | 184               | 20                           | 1                              | —                          | —                                                             | 1                                   |
| Pemphigus neonatorum ...                                      | —                                      | —                 | —                            | —                              | —                          | —                                                             | —                                   |
| Erysipelas ... ..                                             | 18                                     | 253               | 7                            | 6                              | 3                          | 1                                                             | 1                                   |
| Encephalitis lethargica ...                                   | 12                                     | 473               | 2                            | 2                              | 5                          | —                                                             | 3                                   |
| Any other diseases in children<br>under five years of age ... | 1,574                                  | 18,580            | 1,454                        | 35                             | 44                         | 7                                                             | 34                                  |
| Any other cases paid for by<br>the Public Health Authority    | 11                                     | 201               | 6                            | 3                              | —                          | —                                                             | 2                                   |
| TOTAL ... ..                                                  | 3,853                                  | 55,757            | 3,135                        | 180                            | 374                        | 49                                                            | 115                                 |

Midwifery Cases.—

|                                                                                                                                                   |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Number of midwifery cases attended (no doctor engaged for confinement) ... ..                                                                     | 1,661 |
| (including 492 primiparæ).                                                                                                                        |       |
| Number of deaths of mothers from all causes, whether taking place at home, in<br>hospital or elsewhere (no doctor engaged for confinement) ... .. | 4     |
| Number of times medical aid sent for :—                                                                                                           |       |
| (a) for mother during pregnancy ... ..                                                                                                            | 61    |
| (b) for mother during labour ... ..                                                                                                               | 458   |
| (c) for mother during puerperium ... ..                                                                                                           | 89    |
| (d) for infant ... ..                                                                                                                             | 127   |
|                                                                                                                                                   | 735   |
| Number of forceps cases ... ..                                                                                                                    | 175   |
| Number of stillbirths ... ..                                                                                                                      | 69    |
| Number of deaths of infants under a month old ... ..                                                                                              | 45    |

Maternity Cases.—

|                                                                                                  |     |
|--------------------------------------------------------------------------------------------------|-----|
| Number of maternity cases attended (doctor engaged, midwife acting as maternity<br>nurse) ... .. | 664 |
| Number of deaths of mothers (maternity cases) ... ..                                             | 4   |

**Midwives.**—The number of midwives practising in the County area at the end of the year 1933 was 748. The work carried out by the County Council under the Midwives Acts is detailed on pages 212 to 219.

**Legislation in Force.**—The district health reports contain lists of special Local Acts or Local Orders, and of the byelaws in force relating to public health.

## SANITARY CIRCUMSTANCES IN THE COUNTY.

**Water Supply.**—The populous portions of the Administrative County are, on the whole, well provided with a constant, plentiful, pure and wholesome water supply. The County rural districts also, as will be seen from the tabular summary below, have public water supplies available for a large percentage of houses in most of the parishes:—

| Rural district. |     | No. of inhabited houses. | Percentage supplied with water from mains. | Rural district. |     | No. of inhabited houses. | Percentage supplied with water from mains. |
|-----------------|-----|--------------------------|--------------------------------------------|-----------------|-----|--------------------------|--------------------------------------------|
| Blackburn       | ... | 3,049                    | 81·9                                       | Lunesdale       | ... | 1,629                    | 48·0                                       |
| Burnley         | ... | 5,164                    | 81·8                                       | Preston         | ... | 7,895                    | 91·6                                       |
| Chorley         | ... | 5,711                    | 77·5                                       | Ulverston       | ... | 4,391                    | 62·8                                       |
| Clitheroe       | ... | 1,579                    | 82·0                                       | Warrington      | ... | 3,543                    | 96·7                                       |
| Fylde           | ... | 4,461                    | 94·0                                       | West Lancashire | ... | 6,453                    | 94·5                                       |
| Garstang        | ... | 2,976                    | 78·6                                       | Whiston         | ... | 4,364                    | 97·2                                       |
| Lancaster       | ... | 2,396                    | 63·3                                       | Wigan           | ... | 1,700                    | 82·8                                       |
| Limehurst       | ... | 2,166                    | 95·0                                       |                 |     |                          |                                            |

It has been pointed out in previous reports that there are a number of parishes, or parts of parishes, and also outlying portions of urban districts, where the supplies are inadequate or unsatisfactory.

The provision of a sufficient and pure water supply in extensive and sparsely populated rural areas presents serious problems. The heavy cost of conveying water long distances, and distributing it to houses scattered far apart, renders the development of *local* resources an absolute necessity. With this in mind, together with the knowledge that comparatively little information is available with regard to the water resources of many of the rural areas, the County public health staff has been engaged, in co-operation with the local officials, in a thorough survey and investigation into the available and potential water resources of all the County rural districts. When these investigations are completed, full information will be available of the position of every township in the County. It is probable that some improvement can be effected within local financial means, and other schemes could be carried out with the aid of contributions from the County Council under the Local Government Act, 1929, and/or, from the Government out of the special sum voted by Parliament for this specific purpose.

Effective co-operation between the Councils of adjoining districts discarding the purely parochial outlook, together with the financial assistance above referred to would remove some of the difficulties recently experienced, and provide for future needs.

The importance of the provision of an adequate and pure water supply for dairy farms needs no emphasis.

The general demand for water is steadily increasing due to the improvement in sanitation and the general conditions of life, and the growing requirements of industry.

In this connection it has to be borne in mind that the increased provision and consumption of water would call for adequate sewage disposal arrangements.

Recent outbreaks of water-borne disease in certain parts of the country have emphasised the importance of preventing as far as possible the pollution of rivers and streams which are utilised, or may in the future have to be used, as sources of water supply.

During the year under report, apart from the special survey referred to above, the County sanitary staff has made investigation into the water supplies of particular townships in the rural districts of Blackburn, Clitheroe, Lunesdale, West Lancashire, Warrington, Wigan, etc., and also in a few of the urban districts.



The Ministry of Health in the year 1933, and early in the present year, issued a number of Circulars and Memoranda on rural water supplies, viz., Circular 1338, 12th May 1933; Circular 1393, 6th April 1934; Memo 179W on chlorination of water supplies, February 1934; Circular 1378, 21st February 1934; a report on the bacteriological examination of water supplies, March 1934; and the Rural Water Supplies Act was passed on the 28th March 1934.

Local Government Act, 1929.—Applications for financial assistance.—Since the issue of the last County Report the following applications have been received by the County Council from District Councils for financial assistance in respect of schemes for the provision or improvement of water supplies :—

| Applicant Authority.                          | Nature of application and cost.                                                                                      | Action by County Council (to July 1934).                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Rainford ... ..                               | Laying of water mains. £2,000.                                                                                       | No grant. The amount of loan charges will not raise the local rates above the County urban average. |
| West Lancashire (R)...<br>Bispham.            | Laying of water main. £2,370.                                                                                        | Public Health Committee recommend grant of £85 for three years, then to be reviewed.                |
| Rishton ... ..                                | Water Supply. £450.                                                                                                  | Grant of £200.                                                                                      |
| Wigan (R) Dalton ...                          | Water Supply. £6,050.                                                                                                | Grant of £131 per annum for 5 years, then to be reviewed.                                           |
| Accrington and District<br>Joint Water Board. | Provision of water main.                                                                                             | Full details not yet available.                                                                     |
| Lancaster (R) Overton                         | Water Supply. £6,600.                                                                                                | Public Health Committee recommend a grant of £144 per annum for five years, then to be reviewed.    |
| Chorley (R) Mawdesley                         | Provision of a water supply. £10,750.                                                                                | Public Health Committee recommend a grant of £85 per annum for five years, then to be reviewed.     |
| Warrington (R) Croft.                         | In regard to additional charge of £71 per annum on township for water supply due to alteration of township boundary. | Grant of £35 per annum for three years, then to be reviewed.                                        |

LOCAL WATER SUPPLIES.—The following tabular statement shows the source of the water supply to each County district, and the number of dwelling houses supplied direct from the mains, or from stand pipes :—

#### WATER SUPPLY.

| DISTRICT.                 | SOURCES AND QUALITY.                                                               | APPROXIMATE NUMBER OF HOUSES SUPPLIED. |               |
|---------------------------|------------------------------------------------------------------------------------|----------------------------------------|---------------|
|                           |                                                                                    | DIRECT.                                | BY STANDPIPE. |
| URBAN.                    |                                                                                    |                                        |               |
| Abram ... ..              | Liverpool Corporation. Constant.                                                   | 1564                                   | ...           |
| Accrington (B) ... ..     | Dean Clough, Mitchell House, and Burnley Road reservoir; also deep well at Altham. | 12543                                  | ...           |
| Adlington ... ..          | Blackrod U.D.C. and Manchester Corporation. Good.                                  | 1095                                   | ...           |
| Ashton-in-Makerfield ...  | Own works and 100,000 gallons daily from Liverpool Corporation (Rivington).        | 4298                                   | 4             |
| Ashton-under-Lyne (B) ... | Ashton-under Lyne, &c. Water-works Joint Committee. Excellent.                     | All.                                   | ...           |
| Aspull ... ..             | Bolton Corporation and Blackrod U.D.C. Good.                                       | 1635                                   | ...           |
| Atherton ... ..           | Manchester and Bolton. Constant.                                                   | 5141                                   | ...           |
| Audenshaw ... ..          | Ashton-under-Lyne, &c. Water-works Joint Committee. Good.                          | 2600                                   | ...           |
| Bacup (B) ... ..          | Moorland. Excellent. (Private supplies to 780 houses).                             | 5185                                   | ...           |

WATER SUPPLY—*continued.*

| DISTRICT.                   | SOURCES AND QUALITY.                                                                                                                                                                                     | APPROXIMATE NUMBER OF HOUSES SUPPLIED. |                        |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------|
|                             |                                                                                                                                                                                                          | DIRECT.                                | BY STANDPIPE.          |
| URBAN.                      |                                                                                                                                                                                                          |                                        |                        |
| Barrowford ... ..           | Nelson. Constant ... ..                                                                                                                                                                                  | All.                                   | ...                    |
| Billinge and Winstanley ... | Old quarry workings. Satisfactory.                                                                                                                                                                       | 1131                                   | ...                    |
| Blackrod ... ..             | Own Waterworks. Rivington gathering ground. Good.                                                                                                                                                        | 900                                    | ...                    |
| Brierfield ... ..           | Nelson Corporation. Good. ...                                                                                                                                                                            | 2250                                   | ...                    |
| Carnforth ... ..            | Carnforth Waterworks Co., Ltd. Reservoir at Withets. Good.                                                                                                                                               | 789                                    | ...                    |
| Chadderton ... ..           | Oldham Corporation; Heywood and Middleton Joint Water Board; springs and wells for a few houses.                                                                                                         | 7499                                   | ...                    |
| Chorley (B) ... ..          | Liverpool Corporation (Rivington) Good. ... ..                                                                                                                                                           | 8480                                   | ...                    |
| Church ... ..               | Accrington District Gas & Water Board and Oswaldtwistle U.D.C.                                                                                                                                           | All.                                   | ...                    |
| Clayton-le-Moors ... ..     | Accrington District Gas & Water Board.                                                                                                                                                                   | All.                                   | ...                    |
| Clitheroe (B) ... ..        | Upland. Excellent ... ..                                                                                                                                                                                 | All.                                   | ...                    |
| Colne (B) ... ..            | Laneshaw and Bents reservoirs. Springs and Moorland. Pure and very soft. Constant.                                                                                                                       | 7301                                   | ...                    |
| Crompton ... ..             | Oldham Corporation mainly. Excellent. ... ..                                                                                                                                                             | 3925                                   | ...                    |
| Croston ... ..              | Manchester Corporation—Thirlmere.                                                                                                                                                                        | 500                                    | ...                    |
| Dalton-in-Furness ... ..    | Reservoir at Poaka Beck, Barrow Corporation.                                                                                                                                                             | Practically all.                       | Few in Marton Village. |
| Darwen (B) . ... ..         | Moorland. Soft ... ..                                                                                                                                                                                    | 10480                                  | ...                    |
| Denton ... ..               | Manchester Corporation. Good...                                                                                                                                                                          | All except 6.                          | 6                      |
| Droylsden ... ..            | Manchester Corporation. Very good.                                                                                                                                                                       | 3973                                   | ...                    |
| Eccles (B) ... ..           | Manchester Corporation ... ..                                                                                                                                                                            | All.                                   | ...                    |
| Failsworth ... ..           | Oldham Corporation. Manchester supply 36 houses in outlying parts. Good.                                                                                                                                 | 4239                                   | ...                    |
| Farnworth ... ..            | Bolton Corporation—Upland gathering grounds. Soft.                                                                                                                                                       | 7789                                   | ...                    |
| Fleetwood (B) ... ..        | Fylde Water Board. Good ...                                                                                                                                                                              | 5269                                   | ...                    |
| Formby ... ..               | Southport and District Water Board. Very good.                                                                                                                                                           | 2272                                   | ...                    |
| Fulwood ... ..              | Upland gathering area. Good ...                                                                                                                                                                          | 1791                                   | ...                    |
| Golborne ... ..             | Bulk supply from Ince. Wells in Golborne, but controlled by Ince U.D.C. Lowton supplied by Liverpool Corporation and Newton-in-Makerfield U.D.C. Kenyon and Culcheth supplied by Warrington Corporation. | 3284                                   | ...                    |
| Grange-over-Sands ...       | Hills at Newton and Simpson Ground.                                                                                                                                                                      | Practically all.                       | ...                    |
| Great Crosby ... ..         | Liverpool Corporation. Very good.                                                                                                                                                                        | All.                                   | ...                    |



WATER SUPPLY—*continued.*

| DISTRICT.                   | SOURCES AND QUALITY.                                                                                                         | APPROXIMATE NUMBER OF HOUSES SUPPLIED. |                             |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|
|                             |                                                                                                                              | DIRECT.                                | BY STANDPIPE                |
| URBAN.                      |                                                                                                                              |                                        |                             |
| Great Harwood ... ..        | Dean Clough reservoir. Good                                                                                                  | Nearly all.                            | ...                         |
| Haslingden (B) ^ ... ..     | Bury and District Joint Water Board. Springs and wells. Constant.                                                            | 4500                                   | ...                         |
| Haydock ... ..              | Rivington reservoirs. Good ...                                                                                               | 2127                                   | 3                           |
| Heywood (B) ... ..          | Heywood and Middleton Water Board. Good.                                                                                     | 7849                                   | ...                         |
| Hindley ... ..              | Rivington reservoirs, Liverpool Corporation. Good.                                                                           | 5095                                   | ...                         |
| Horwich ... ..              | Moorland and Pumping Station. Good.                                                                                          | 4223                                   | ...                         |
| Huyton-with-Roby ... ..     | Liverpool Corporation. Excellent.                                                                                            | 1850                                   | 29 houses by 3 taps.        |
| Ince-in-Makerfield ... ..   | Council's own deep wells at Golborne and Liverpool Corporation (Rivington reservoirs). Good.                                 | 4807                                   | 4                           |
| Irlam ... ..                | Manchester Corporation supply 3,251 houses; Warrington Corporation 9 houses; 1 from well, and 6 without proper supply. Good. | 3260                                   | ...                         |
| Kearsley ... ..             | Bolton Corporation mostly, and Bury and District Joint Water Board; upland gathering grounds.                                | 2939                                   | ...                         |
| Kirkham ... ..              | Fylde Water Board. Good ...                                                                                                  | 1090                                   | ...                         |
| Lancaster (B) ... ..        | Wyresdale north side, moorland surface and springs. Good.                                                                    | 10100                                  | About 400 by 90 standpipes. |
| Lees ... ..                 | Oldham Corporation ... ..                                                                                                    | All.                                   | ...                         |
| Leigh (B) ... ..            | Liverpool Corporation, Rivington waterworks. Constant ...                                                                    | 10843                                  | ...                         |
| Leyland ... ..              | Clayton-le-Woods, and Thirlmere                                                                                              | 3143                                   | ...                         |
| Litherland ... ..           | Liverpool Corporation. Very good.                                                                                            | 3942                                   | 2                           |
| Littleborough ... ..        | Rochdale Corporation, reservoir at Ramsden. Good ...                                                                         | 3250                                   | ...                         |
| Little Lever... ..          | Bury and District Joint Water Board. Good.                                                                                   | All but one.                           | ...                         |
| Longridge ... ..            | Preston Corporation. Good ...                                                                                                | 1020                                   | ...                         |
| Lytham Saint Anne's (B) ... | Fylde Water Board. Excellent ...                                                                                             | 7166                                   | ..                          |
| Middleton (B) ... ..        | Heywood and Middleton Water Board.                                                                                           | 8406                                   | At farms.                   |
| Milnrow ... ..              | Rochdale and Oldham Corporations. Good.                                                                                      | 2332                                   | ...                         |
| Morecambe & Heysham (B)     | Lancaster Corporation reservoirs, millstone grit. ... ..                                                                     | 8090                                   | ...                         |
| Mossley (B) ... ..          | Swineshaw and Yeoman Hey reservoirs. Moorland. Good.                                                                         | 3327                                   | ...                         |
| Nelson (B) ... ..           | Moorland. Good ... ..                                                                                                        | All.                                   | ...                         |
| Newton-in-Makerfield ... .. | Deep wells (3) with headings and two deeper boreholes in red sandstone. Good.                                                | 5034                                   | 1                           |
| Ormskirk ... ..             | Deep wells in red sandstone. Constant.                                                                                       | 4311                                   | 82                          |
| Orrell ... ..               | Reservoir at Bispham under Wigan Corporation; also pumping from "Nicholson's Pit." Good.                                     | 1826                                   | ...                         |

WATER SUPPLY—*continued.*

| DISTRICT.                  | SOURCES AND QUALITY.                                                                                  | APPROXIMATE NUMBER OF HOUSES SUPPLIED. |                    |
|----------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------|
|                            |                                                                                                       | DIRECT.                                | BY STANDPIPE.      |
| URBAN.                     |                                                                                                       |                                        |                    |
| Oswaldtwistle ... ..       | Own works, moorland and bore-hole. Fairly good.                                                       | 3852                                   | ...                |
| Padiham ... ..             | Pendle Hill. Good ... ..                                                                              | 3295                                   | ...                |
| Poulton-le-Fylde ... ..    | Fylde Water Board. Good ...                                                                           | 985                                    | ...                |
| Precsall ... ..            | Fylde Water Board. Good ...                                                                           | 611                                    | ...                |
| Prescot ... ..             | Liverpool Corporation. Good ...                                                                       | All.                                   | ...                |
| Prestwich ... ..           | Manchester Corporation, Bury and District Joint Board, and Heywood and Middleton Water Board. Good.   | 7000                                   | ...                |
| Radcliffe ... ..           | Bury and District Joint Water Board. Good                                                             | 7900                                   | ...                |
| Rainford ... ..            | St. Helens Corporation. Good ...                                                                      | 862                                    | ...                |
| Ramsbottom ... ..          | Bury & District Joint Water Board. Good. Some private supplies.                                       | 3958                                   | ...                |
| Rawtenstall (B) ... ..     | Bury & District Joint Water Board supply three-fourths, remainder private. Good.                      | 5966                                   | ...                |
| Rishton ... ..             | Accrington District Gas and Water Board. Good.                                                        | 2000                                   | 17                 |
| Royton ... ..              | Oldham Corporation. Good ...                                                                          | 4400                                   | ...                |
| Skelmersdale ... ..        | Artesian well. Good ... ..                                                                            | 1428                                   | ...                |
| Standish-with-Langtree ... | Liverpool Corporation. Anglezarke reservoir. Good.                                                    | All.                                   | ...                |
| Stretford (B) ... ..       | Manchester Corporation. Good. Three wells (to farms). Fair.                                           | 15156                                  | ...                |
| Swinton and Pendlebury ... | Manchester Corporation. Good...                                                                       | 10154                                  | ...                |
| Thornton Cleveleys ... ..  | Fylde Water Board. Good ...                                                                           | 3270                                   | ...                |
| Tottington ... ..          | Bury and District Joint Water Board. Constant.                                                        | 1579                                   | ...                |
| Trawden ... ..             | Boring on Boulsworth Hill. Excellent.                                                                 | 700                                    | ...                |
| Turton ... ..              | Bolton Corporation. Constant.                                                                         | 3046                                   | ...                |
| Tyldesley ... ..           | Manchester Corporation (Thirlmere). Good.                                                             | Nearly all.                            | ...                |
| Ulverston ... ..           | Reservoir at Pennington, Ulverston (R.). Good.                                                        | Nearly all.                            | Village of Rosside |
| Upholland ... ..           | Two deep wells. Good ... ..                                                                           | 1257                                   | ...                |
| Urmston ... ..             | Manchester Corporation. Good.                                                                         | 7683                                   | ...                |
| Walton-le-Dale ... ..      | Deep well at School Lane, Bamber Bridge, and Thirlmere reservoir, (Manchester Corporation). Constant. | 3440                                   | 5                  |
| Wardle ... ..              | Rochdale Corporation. Good ...                                                                        | 778                                    | ...                |
| Waterloo-with-Seaforth ... | Liverpool Corporation. Good ...                                                                       | 7549                                   | ...                |
| Westhoughton ... ..        | Bolton Corporation. Satisfactory.                                                                     | 4094                                   | 3                  |
| Whitefield ... ..          | Upland surface. Variable ...                                                                          | 98%                                    | ...                |
| Whitworth ... ..           | Rochdale and Bacup Corporations. Good.                                                                | 2149                                   | ...                |
| Widnes (B) ... ..          | Deep well in sandstone. Excellent.                                                                    | 9363                                   | ...                |



| DISTRICT.              | SOURCES AND QUALITY.                                                                                                       | APPROXIMATE NUMBER OF HOUSES SUPPLIED. |               |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------|
|                        |                                                                                                                            | DIRECT.                                | BY STANDPIPE. |
| URBAN.                 |                                                                                                                            |                                        |               |
| Withnell ... ..        | Liverpool Corporation. Good ...                                                                                            | 794                                    | 20            |
| Worsley ... ..         | Bolton and Manchester Corporations. Excellent.                                                                             | All but one.                           | 1             |
| RURAL.                 |                                                                                                                            |                                        |               |
| Blackburn ... ..       | Blackburn, Manchester and Darwen Corporations. Remainder from private reservoirs and wells.                                | 2540                                   | ...           |
| Burnley ... ..         | Council's own waterworks and those of adjoining towns. Upland surface and springs. Quality satisfactory.                   | 4356                                   | 20            |
| Chorley ... ..         | Mainly Manchester Corporation (Thirlmere); Rivington supplied by Liverpool Corporation; private supplies and wells.        | 5167                                   | 1             |
| Clitheroe ... ..       | Springs and wells; auxiliary supply from Clitheroe Corporation to Whalley if required.                                     | 1320                                   | 284           |
| Fylde ... ..           | Fylde Water Board. Constant ...                                                                                            | 5044                                   | ...           |
| Garstang ... ..        | Principally from Fylde Water Board; Manchester Corporation, and private mains, all constant.                               | 2332                                   | 26            |
| Lancaster ... ..       | Lancaster, Manchester, Heysham, and Carnforth. Good. Some roof water supplies and wells, satisfactory; other supplies bad. | 1639                                   | 13            |
| Limehurst ... ..       | Mostly Ashton-under-Lyne and District Waterworks Committee; Oldham Corporation. Constant.                                  | 96%                                    | 5             |
| Lunesdale ... ..       | Thirlmere, Caton reservoir, private supplies.                                                                              | 796                                    | 67            |
| Preston ... ..         | Preston and Manchester Corporations, Fulwood U.D.C., Fylde Water Board. Constant.                                          | 7638                                   | ...           |
| Ulverston ... ..       | Various. Chiefly Pennington and Seathwaite reservoirs. Cartmel supplied by Grange. Good.                                   | Not recorded.                          | ...           |
| Warrington ... ..      | Warrington and Liverpool Corporations. Very good, but rather hard. Also few wells in outlying parts.                       | 3281                                   | 59            |
| West Lancashire ... .. | Upland surface water, deep wells, etc. Constant, except in Rufford where there is a shortage at times.                     | 6095                                   | 20            |
| Whiston ... ..         | Mainly from Liverpool, St. Helens, and Widnes Corporations. Constant. Wells in outlying districts—not always dependable.   | 4705                                   | 25            |
| Wigan ... ..           | Various. Chiefly springs, wells and moorland. Fair.                                                                        | 1405                                   | 1             |

The following comments are made by district Medical Officers of Health in regard to the local water supplies :—

Ashton-in-Makerfield.—Until we have definitely increased our supply materially we are unable to convert the present pail system to water carriage, although all new property is subject to the provision of w.e.'s.

Billinge and Winstanley.—One of the present sources of supply was definitely contaminated, and its use was discontinued thereafter for some months, until during the dry weather, when the likelihood of surface pollution was remote, and a further examination had proved it safe. But of the new source within our boundary, the results have been disquieting in their diversity. Nevertheless the water was not considered detrimental to the public health. No further use was made of the source, the Upholland supply meeting almost all the requirements of the district. Now, on the verge of a summer which bids fair again to be dry, we are hoping to commence developments, at an early date ; our elevation over most of the surrounding country would preclude us from availing ourselves of practically all adjacent sources should our present supplies fail us.

Golborne.—The water supply during the year has again been unsatisfactory. At its best, it is very hard, and is still at times discoloured.

Grange-over-Sands.—The unprecedented weather conditions of 1933—deficient rainfall with continued sunshine and drying winds—caused many anxious moments during early October. A constant supply was given to all consumers until the 30th September, but from that date until the 13th October an intermittent supply was given from the waterworks, supplemented by water pumped from a spring in Grange. On the latter date full supplies were restored and have been maintained since.

Haslingden (B).—In my last Annual Report it was stated that arrangements had been made for the installation of a water hardening plant to counteract the plumbo-solvent action of the water supplied to certain parts of the town. Scheme will be proceeded with when the Ministry's sanction is obtained to certain suggested alterations.

Horwich.—Not only were difficulties experienced as to quantity, but many complaints were received from ratepayers as to the quality of the water supplied. As reported in previous years, the chief causes of complaint were the large amount of deposited matter and discoloration. These troubles were aggravated when the supply from the Horwich reservoir was nearly exhausted. After an exhaustive examination, it was proved that the deposited matter in the reservoir and the mains was due to a low form of vegetable growth *Leptothrix Ochracea* coming from the pumping station and peaty matter from the moorlands, and that the yellow colour of the water was due to peat. Measures formulated to deal with the problem include the putting down of a series of dams on the gathering ground and short circuiting of a tank on the pump supply. Means have also been taken to apportion one part of the town wholly to the Blackrod supply, whilst the rest is wholly supplied from Horwich. Considerable improvement in the quality has resulted but in the opinion of the Sub-Committee the ideal solution will be filtration of the whole supply.

Kearsley.—With regard to the water supplied by the Bury and District Joint Water Board, numerous complaints were received from Ringley and Prestolee about discoloration and heavy deposits in the water. The matter was taken up with the Board, and considerable improvement took place.

Lancaster (B).—Restrictions were placed on consumers from the middle of June, from which date an auxiliary supply was obtained from the wells at Greenfield Mill. Good progress continued to be made during the year with the construction of the reservoir at Langthwaite.

Littleborough.—A number of houses in the district are supplied with water from private supplies, which in some cases are not so satisfactory as could be desired.

Oswaldtwistle.—There is serious risk of contamination from land forming part of the gathering ground. In 1928 Coeker Cobbs farm on the gathering ground was purchased, and in January, 1933 a Compulsory Purchase Order was confirmed by the Minister of Health to acquire additional land to eliminate this source of contamination. My predecessor in previous reports has referred to this matter of the inadequacy of the water supply, and it is a matter for the Council to take immediate steps to ensure a water supply satisfactory in quantity and quality. The water supply available for Belthorn is still insufficient to meet all requirements, particularly as regards closet conversion. Extension of water supply to Cross Edge, Newthorn and Redwalls district required.

Tottington.—Chief sanitary requirements of the district include improved water supply to Affetside and Four Lane Ends, which is being dealt with.



Turton.—There is occasional liability to lead solvency due to the peaty character of the gathering ground, but the water is submitted to analysis several times during the year; also every possible precautionary method is adopted at the source by the Bolton Corporation to maintain its purity.

Burnley (R).—The supply at Houlker's, Read, to which reference has been made in previous reports, still remains unsatisfactory. Efforts are being made to secure an alternative supply.

Clitheroe (R).—There is some insufficiency of supply at outlying farms in dry weather. Roadside wells unsuitable for drinking purposes.

Limehurst (R).—Ignoring the impending new connections to mains, there are approximately 94 per cent. of the houses and population now on Town's water, 2 per cent. on supplies piped privately from springs into premises, and the remaining 4 per cent. are supplied by wells.

Lunesdale (R).—The several schemes for the supply of water to the villages of Gressingham, Over Kellett, Nether Kellett, and Mill Houses are still in hand. The villages of Arkholme, Whittingham and Leek are still without proper distribution. The water in Arkholme has to be carried a considerable distance from standards situated by the roadside. Leek also is badly supplied and needs prompt attention, an ample supply being available by gravitation from the fell nearby.

Ulverston (R).—Colton.—(Oxenpark).—It has recently been brought to the notice of your Officers that the private supplies in the village of Oxenpark are not now adequate for modern requirements, and the Engineer and Inspector are engaged in preparing a survey of this district with a view to providing a gravitation supply, but I am afraid the engineering difficulties may be a serious obstacle. Coniston.—(Catbank).—The pressure to the houses at the highest part of Coniston has always been very unsatisfactory and with a view to remedying the defect it has been decided to lay an inch pipe by a more direct route to the houses. Egton-with-Newland and Lowick.—The unprecedented drought experienced during practically the whole of last summer emphasised the real necessity for a comprehensive gravitation scheme of water supply to serve the villages in the Townships of Egton-with-Newland and Lowick. The sanction of the Ministry to a loan in respect of the works has been granted.

West Lancashire (R).—The provision of a water supply for the township of Bispham is now almost an accomplished fact. The provision of an adequate supply from public service for Bispham has long engaged the attention of the Council, but as a penny rate in Bispham is worth less than £3 the project prior to the passing of the Local Government Act, 1929, has always been shelved as unfeasible. Spreading the cost over the whole district it is estimated that the majority of the houses in Bispham could be supplied with water from mains at a cost of approximately a halfpenny rate, and the Council has issued instructions for a scheme to be prepared. . . . As an indication of the favourable position of the West Lancashire Rural District with regard to water supply it is stated 94.9 per cent. of the houses are supplied from public mains.

Wigan (R).—During 1933, 304 houses were without public water supply. Water and sewage schemes are, however, contemplated for several districts in the rural area. The Council have completed a scheme for providing Appley Bridge with a water supply which it is intended will ultimately supply the whole of Wrightington, and also, if required, surrounding parishes. During 1933 pumps were installed, a 90,000 gallon reservoir constructed, and several miles of main laid at an approximate cost of £10,000. It is also hoped, before the end of the year, to connect up Mossy Lea, as owing to the growth of the area the existing supply is not sufficient. The Parish of Dalton is without a public supply of water, with the exception of a few houses supplied by outside authorities. A piped supply is urgently required for this Parish, and the Council have devoted considerable attention to various schemes.

Improvements and Extensions in 1933.—The following are extracts from the local reports:—Bacup (B), mains extended and 42 houses, 2 works and mills supplied; Dalton-in-Furness, mains relaid; Haydock, new reservoir constructed with capacity of one million gallons; Lancaster (B), new storage reservoir in course of construction at Langthwaite; Nelson (B), new reservoir completed; Rainford, 3,000 yards main being laid from Windle boundary; Ramsbottom, 25 houses at Nuttall Village connected to mains; Rawtenstall (B), a private supply at Goodshaw extended by boring a well and fixing an electric pump to fill storage reservoir; Upholland, St. Joseph's Catholic College connected to mains; Withnell, 75 yards of 3" main in Stanworth area; Blackburn (R), extension of mains in Parish of Pleasington; Chorley (R), new mains in western area; Clitheroe (R), mains extended in Brooks Lane and Abbey Road, Whalley; Fylde (R), 1,000 yards in Guides Lane, Warton, and 1,500 yards in Hardhorn; Lancaster (R), mains completed in the townships of Cockerham and Thurnham; Limehurst (R), extension in Fir Tree Lane, Bardsley, for 5 cottages and a farm; also in Knotts Lane for one school, 10 cottages, etc. Other extensions to new housing estates, new property, etc., include:—Chorley (B), 320 yards; Heywood (B), 987 yards; Middleton (B), 1,515 yards; Ormskirk, 15,532 yards; Orrell, 3" main to 100 houses; Radcliffe, to 102 houses; Preston (R), approximately 5,000 yards; Whiston (R), 2,203 yards; and Wigan (R), in Parbold, Shevington, and Wrightington.

Possibilities of contamination, due mainly to surface contamination, are reported from :—Abram, open storage reservoir at Stubshaw Cross ; Mossley (B), mainly due to the silting up of service pipes ; Oswaldtwistle, several farms on 100 acres of gathering ground not yet owned by Council ; Ramsbottom, manured fields in the case of private supplies ; and Clitheroe (R), surface water.

Liability to plumbo-solvent action :—A few instances are reported :—Colne (B), the supply is liable to acidity from the peaty gathering ground but is corrected by the addition of lime after filtration ; Golborne, notice given to the Ince-in-Makerfield Urban Council on account of discoloration ; Haslingden (B), remedial steps taken ; Haydock, strongly plumbo-erosive ; Ramsbottom, plumbo-solvent action on hot water pipes ; Burnley (R), one small supply which serves about 20 houses liable to plumbo-solvent action ; Chorley (R), tin-lined pipes required.

Insufficient or unsatisfactory supplies are reported upon from :—Dalton-in-Furness, outlying districts ; Ormskirk, pressure moderate at Newburgh ; Oswaldtwistle, Higher Stanhill, Knuzden and Duckworth Hall area ; Rainford, shortage in Rainford junction area ; Ramsbottom, Holcombe Village ; Burnley (R), Read and the higher reaches of Foulridge ; Chorley (R), township of Mawdsley depends completely on wells ; Fylde (R), Treales, Roseacre and Wharles ; Lunesdale (R), several townships ; Preston (R), Goosnargh ; Warrington (R), part of Cuedley ; Whiston (R), a few isolated houses chiefly in Bold and Kirkby ; Wigan (R), Dalton and parts of Wrightington.

Private supplies.—Wells, Springs, Rainwater, etc.—Particulars have been obtained from most districts as to the approximate number of dwelling houses with private water supplies. Among the urban districts, Bacup (B) has 780 houses so supplied, Crompton 117, Littleborough 300, Oswaldtwistle 150, Ramsbottom 650, Rawtenstall (B) 2,113. The rural districts with the largest number of houses so supplied are Blackburn (R) 567, Burnley (R) 992, Lancaster (R) 928, Preston (R) 550. In a number of areas frequent chemical and bacteriological examination of the water was made, and a number of wells were closed.

**Rivers and Streams.**—A very considerable portion of the Administrative County, including the main industrial area, is under the jurisdiction of the Mersey and Irwell and the Ribble Watershed Joint Committees as regards the pollution of rivers and streams. Elsewhere the County Council is the Authority.

The public health aspect of the question of the prevention of pollution of rivers and streams is of special importance at this time because of their potentialities as sources of water supply, or because of their possibilities as sources of pollution of water supplies.

A number of the local reports contain references to the steps taken to safeguard and improve certain rivers and streams and to prevent or minimise their pollution. The streams flowing through industrial areas still receive quantities of polluting discharges, and there is yet, in rural areas where no public scavenging exists, a temptation for householders to use streams as a ready means of disposing of their refuse.

Among the local comments on river pollution are :—

Darwen (B).—The whole of the bed of the River Darwen still needs pitching and arching over in the vicinity of dwelling houses and shops. This would prevent much rubbish being deposited in the river and obviate the emanations of steam and foul odours.

Great Crosby.—The Rimrose Brook was a subject of complaint. This brook runs for a short part of its course along one of the district boundaries but most certainly does not become contaminated in this part of its course. It receives the effluent of a large piggery and slaughterhouse in an adjoining district, and owing to the lack of surface water became very objectionable. Representations were made to the Local Authority concerned, and it is hoped that their action will satisfactorily dispose of the nuisance.

Littleborough.—Effluent from the artificial silk works discharged into the river causes most disagreeable smells.

Newton-in-Makerfield.—The previous pollution of rivers and streams has been much reduced. The Golborne sewage works which were completed last year are now giving a good effluent, and the effluent from the artificial silk works is also better treated. The improvements have obviated the emission of objectionable gases, except on rare occasions. The condition of the water in Newton Lake is very much improved as the result. There is still some pollution entering the lake from the Haydock sewage beds. The pollution from the Newton sewage works has now ceased since these works were completed, and put into full action.

Padiham.—Drainage from factories, etc. formerly discharging into streams has been diverted into the public sewers.



**Drainage and Sewerage.**—Each district report gives briefly the character of the sewage disposal, works and the method of treatment. A perusal of the reports show that during 1933 a considerable amount of work has been carried out in the provision of new sewers, and improvements and extensions at sewage disposal works, yet there appears to be room for more active co-operation between neighbouring Authorities with a view to avoiding multiplication of small schemes and thus effecting considerable economies. The rapid development of building sites in many areas has called for considerable expenditure on sewers and sewage treatment schemes.

Among the extension or improvement schemes initiated or carried out during the year under report the following may be mentioned :—

Abram.—Plank Lane and the east portion of Bickershaw re-sewered and working satisfactorily.

Barrowford.—Five new percolating filters, three humus tanks, dosing chamber, detritus tanks, screening chambers, etc., in course of construction.

Carnforth.—Scheme for relief sewer for Highfield district completed. A system of sewerage and sewage disposal plant completed for the Crag Bank district.

Crompton.—Percolating filter constructed at Low Crompton.

Golborne.—A scheme costing £12,000 carried out during 1932–33.

Kirkham.—Scheme in hand for improving and extending sewers in Orders Lane ; estimated cost about £64,000. Ministry of Health inquiry held.

Laneaster (B).—Scheme in preparation to pick up outfalls and discharge nearer sea.

Litherland.—Three thousand yards new sewers or house drains completed.

Morecambe and Heysham (B).—Extensive scheme for provision of new sewers and outfall being prepared.

Ormskirk.—The new sewerage works at Ormskirk and New Lane were put into operation about Easter. These consist of settling tanks and mechanical filters, and a much improved effluent should result.

Prestwich.—Enlargement of sewage disposal works completed.

Rainford.—The sewerage scheme has now been completed and all new houses are being connected thereto.

Rishton.—Main drainage scheme now in progress.

Burnley (R).—A scheme for the sewerage of the Lane Ends portion of Hapton has been prepared by the Surveyor and an early start on the work may be expected. Sewerage schemes are badly needed in the villages of Cliviger, Higham, Dunnoekshaw and Briercliffe.

Limehurst (R).—Council have approved a scheme and passed plans for extension of the humus tank capacity at each of their sewage works. Filter beds have been constructed for the drainage of new houses built in the non-sewered parishes.

Warrington (R).—A sewerage scheme has been prepared for the whole district but has been referred back for further consideration and extension. The parishes of Penketh, Sankey, Poulton-with-Fearnhead, and Woolston are especially in need of proper sewerage arrangements.

Other comments by district Medical Officers of Health on sewerage matters are given below :—

Chorley (R).—The sewerage (and water supply) for the district is the most important and the most urgent problem for the present. Small extensions have taken place but there are areas where the building has become so localised that schemes for the disposal of the sewage by properly constructed sewers and disposal works will have to be carried out.

Oswaldtwistle.—Extension of sewer to Knuzden small holdings, Cross Edge, Newthorn and Duckworth Hall required.

Limehurst (R).—The question of the proper sewerage of the parishes of Littlemoss and Woodhouses, with the necessary disposal works for the treatment of the sewage, cannot be put off indefinitely, and the same comments may be applied to parts of the parishes of Alt and Hartshead.

Lunesdale (R).—In Wray the sewerage system is somewhat antiquated, and out of date. It consists of tanks and irrigation. The south-east portion of the village is sewered to a cesspool on the bank of the river Roeburn, and is very crude. The drains (slopstone) are below the sewer level, and discharge direct into the river. The question of sewage treatment at Halton is under consideration. In Caton there are six public tanks and cesspools, and several private systems that are unconnected with the existing sewers. It is necessary that a more unified system should be put in hand. Owing to an outbreak of diphtheria at Kellet and Wray, the sewerage of these villages requires some attention. Nether and Over Kellet are in need of a public sewer. The present drains discharge into the surface water drains, and in most cases the sewage is not treated.

Ulverston (R).—Allithwaite Lower (Allithwaite).—The present position with regard to the proposed scheme for the sewerage of the village of Allithwaite is that the Sub-Committee has fully considered a comprehensive proposal and will very shortly be able to submit a full report and recommendation to the Council. Aldingham (Baycliffe).—The last section of the sewerage of the village of Baycliffe will be taken in hand within the next few weeks. Coniston.—In previous annual reports the necessity for the provision of some more comprehensive method of drainage of the village of Coniston has been pointed out; the question is now to receive the consideration of a Sub-Committee.

West Lancashire (R).—The new sewerage scheme for Maghull is now completed and the majority of the houses in the sewered area have lately been connected. At the Aughton sewage works an electric pump has been provided.

Wigan (R).—A scheme was prepared for the sewerage of Wroughtington, Shevington and Parbold. The estimated cost was £45,000, including the provision of three disposal works. Unfortunately the financial condition of the country during 1931 caused the Government to reduce the Unemployment Grant to such an extent as to prevent the Council considering the scheme further, without putting a tremendous burden on the rates.

Townships or areas without proper drainage schemes include :—Burnley (R).—Cliviger, Dunnockshaw, Higham, Newchurch-in-Pendle, and parts of Briercliffe and Hapton. Chorley (R).—Heskin, Hoghton, Bretherton, Brindle (part), Cuerden (part), Ulnes Walton, Duxbury, Charnock Richard. Clitheroe (R).—Aughton, Bailey, Chaigley, Downham, Little Bowland, Mearley, Dearnley, Chipping, Pendleton, Twiston. Croston.—Several areas, proposed scheme adjourned on the grounds of economy. Golborne.—Lowton, Kenyon and Culcheth, sewerage schemes under consideration. Lancaster (R).—Silverdale, Priest Hutton, Yealand Conyers, Yealand Redmayne, Overton. Limehurst (R).—Alt, Hartshead, Littlemoss, Woodhouses. Warrington (R).—Practically the whole of the district is in great need of a complete sewerage scheme; a scheme was prepared last year but was referred back for further consideration. West Lancashire (R).—All townships except Aughton, Maghull and Tarleton. Wigan (R).—All townships except part of Haigh.

Local Government Act, 1929, Section 57(1).—Since the last report only one application has been received by the County Council for financial assistance in respect of the provision of sewers or sewage disposal works, viz., Kirkham urban district, application for grant towards the cost of works estimated to cost £4,410. The County Public Health Committee, having regard to the fact that the annual amount required to meet the loan charges on the scheme will not apparently increase the district rate beyond the average for the urban areas, came to the conclusion that, in the circumstances, they could not equitably recommend the County Council to make a contribution to the cost of the scheme in question.



**Closet Accommodation.**—Table 4, pages 99 to 105, shows approximately the number of the various types of closet accommodation in each of the County districts at the end of the year 1933.

This accommodation may be summarised as under :—

|                                    | Urban districts. | Rural districts. | County. |
|------------------------------------|------------------|------------------|---------|
| Privy Middens ... ..               | 8,874            | 12,658           | 21,532  |
| Privy Closets ... ..               | 13,472           | 16,306           | 29,778  |
| Pail Closets ... ..                | 18,473           | 9,656            | 28,129  |
| Water Closets ... ..               | 347,808          | 28,914           | 376,722 |
| Waste-water Closets ... ..         | 82,673           | 3,396            | 86,069  |
| Ashpits (excluding middens) ... .. | 36,827           | 6,760            | 43,587  |
| Movable Ashbins ... ..             | 359,243          | 29,377           | 388,620 |

The figures below, collated from local health reports, indicate the action taken in the County districts during 1933 and the preceding four years to abolish the insanitary types of privy, &c., accommodation :—

|                                                | 1929 | 1930 | 1931 | 1932 | 1933 |
|------------------------------------------------|------|------|------|------|------|
| Privies converted to Water Closets ... ..      | 2724 | 2522 | 2417 | 1883 | 1805 |
| Privies converted to Pail Closets ... ..       | 165  | 204  | 146  | 152  | 159  |
| Pail Closets converted to Water Closets ... .. | 1543 | 2730 | 2229 | 1736 | 1342 |

During the year under report 1,805 privies have been converted to the water carriage system, the greatest number of conversions taking place in the following districts :—Ince-in-Makerfield 247, Aspull 174, Orrell 170, Ormskirk 137, Skelmersdale 126, Standish-with-Langtree 92, Tottington 84, Golborne 79, Haydock 66, and Ulverston (R) 65.

Reference to Table 4, pages 99 to 105, will show that in the following urban districts there is still a relative high proportion of privies in existence :—Ince-in-Makerfield 1,526, Golborne 1,151, Ormskirk 996, Abram 769, Standish-with-Langtree 759, Tyldesley 722, Rainford 672, Orrell 566, etc. Of the twenty-one thousand privy middens in the Administrative County, over twelve thousand exist in the rural areas.

The following paragraphs are extracted from the local reports :—

Aspull.—Exceptional progress has been made in the work of conversion of privy middens and closets to the water carriage system and the provision of metal ashbins. During the year 76 privy middens, with 144 closets attached, were abolished and 186 water closets provided. In the Top Lock area only 14 privy middens now remain to be converted, and it is hoped that these will be removed during the coming year.

Billinge and Winstanley.—The water carriage system is gradually supplanting the conservancy system. Fewer conversions than usual have been effected during the past year owing to water shortage, and through awaiting the demolition of slum property, where the worst type of sanitary convenience is prevalent.

Newton-in-Makerfield.—The Medical Officer of Health repeats what he has said for many years, that now there is sufficient water and sewage treatment available, the conversion of every remaining privy and pail within the reach of the sewers should be undertaken with the least possible delay.

Whitefield.—The general system of sanitation in the Hillock area is far from ideal, there being no proper and efficient system of drainage, whilst the majority of privy middens are of the open type.

TABLE 4—CLOSET ACCOMMODATION.

| URBAN DISTRICTS. |     | Privy Middens.  |                       | No. of Pail Closets. | No. of Ashpits (excluding middens). | No. of Freshwater Closets. | No. of Movable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.       |                                |                             |                               |                               |                                | TOTAL CONVERSIONS DURING 5 YEARS, 1928-1932. |                                |                               |                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
|------------------|-----|-----------------|-----------------------|----------------------|-------------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------------------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|----------------------------------------------|--------------------------------|-------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|                  |     | No. of Middens. | No. of Privy Closets. |                      |                                     |                            |                         |                             |                                                    | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Fresh W.C.'s. | Privy Closets to Fresh W.C.'s.               | Privy Closets to Waste W.C.'s. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
| Abram ...        | ... | 419             | 769                   | 31                   | 184                                 | 924                        | 452                     | ...                         | Half-cost                                          | 44                             | ...                            | ...                         | ...                           | ...                           | 33                             | ...                                          | 1                              | ...                           | ...                           | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...</ |



TABLE 4—continued.

| URBAN DISTRICTS.      |     |     |     |     |     |     |     |     |     | Privy Middens.  |                       | No. of Pail Closets. | No. of Ashpits (excluding middens). | No. of Moveable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.       |                                |                             |                               |                               |                             |                               | TOTAL CONVERSIONS DURING 5 YEARS, 1928-1932. |                                |                               |                                |                               |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|-----------------------|----------------------|-------------------------------------|--------------------------|-----------------------------|----------------------------------------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|-----------------------------|-------------------------------|----------------------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|
|                       |     |     |     |     |     |     |     |     |     | No. of Middens. | No. of Privy Closets. |                      |                                     |                          |                             |                                                    | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s.                | Privy Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. |
| Clitheroe (B) ...     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1               | 2                     | 107                  | 2                                   | 3500                     | 1500                        | £4 per closet                                      | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Colne (B) ...         | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...             | ...                   | 39                   | 1699                                | 5064                     | 4377                        | Half-cost                                          | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Crompton ...          | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...             | 22                    | 120                  | 2                                   | 3762                     | 254                         | Whole cost                                         | ...                            | ...                            | 5                           | 4                             | 2                             | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Croston ...           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 269             | 269                   | 153                  | 130                                 | 107                      | 2                           | ...                                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Dalton-in-Furness ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 54              | 113                   | 20                   | 330                                 | 1881                     | 31                          | ...                                                | 6                              | ...                            | 3                           | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Darwen (B) ...        | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...             | ...                   | 164                  | 5                                   | 11163                    | 2400                        | Half-cost                                          | ...                            | ...                            | ...                         | ...                           | 24                            | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Denton ...            | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7               | 10                    | 39                   | 6                                   | 5338                     | 437                         | ...                                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Droylsden ...         | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...             | ...                   | 8                    | ...                                 | 4251                     | 36                          | ...                                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Eccles (B) ...        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2               | 2                     | 69                   | ...                                 | 11750                    | 110                         | £3 to £5 per closet                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Failsworth ...        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 15              | 29                    | 147                  | 3                                   | 4406                     | 176                         | Pails—whole cost. Privies—half-cost                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Farnworth ...         | ... | ... | ... | ... | ... | ... | ... | ... | ... | 18              | 25                    | 12                   | 1                                   | 7754                     | 520                         | ...                                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Fleetwood (B) ...     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3               | 9                     | 31                   | 5                                   | 5300                     | 32                          | ...                                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Formby ...            | ... | ... | ... | ... | ... | ... | ... | ... | ... | 61              | 61                    | 375                  | 221                                 | 2009                     | ...                         | ...                                                | ...                            | 2                              | 14                          | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Fulwood ...           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 21              | 21                    | 8                    | 18                                  | 1575                     | 3                           | ...                                                | ...                            | ...                            | ...                         | 6                             | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Golborne ...          | ... | ... | ... | ... | ... | ... | ... | ... | ... | 540             | 1151                  | 89                   | 25                                  | 2005                     | 10                          | £4 per closet                                      | 79                             | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Grange-over-Sands ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 10              | 10                    | 1                    | 215                                 | 425                      | ...                         | ...                                                | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Great Crosby ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 68              | 71                    | 13                   | 9                                   | 5844                     | ...                         | By agreement                                       | ...                            | ...                            | ...                         | ...                           | ...                           | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |
| Great Harwood ...     | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...             | ...                   | 44                   | 1186                                | 2325                     | 2670                        | £5 per closet                                      | ...                            | ...                            | ...                         | ...                           | 2                             | ...                         | ...                           | ...                                          | ...                            | ...                           | ...                            | ...                           |

| URBAN DISTRICTS. |     |     |     |     |     |     |     |     |   | Privy Middens.  |                       | No. of Pail Closets. | No. of Ashpits (excluding middens). | No. of Freshwater Closets. | No. of Movable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.       |                                |            |                               |                               |                                | TOTAL CONVERSIONS DURING 5 YEARS, 1928-1932. |                               |                               |                                |                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|-----------------|-----------------------|----------------------|-------------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------------------------------|--------------------------------|--------------------------------|------------|-------------------------------|-------------------------------|--------------------------------|----------------------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|                  |     |     |     |     |     |     |     |     |   | No. of Middens. | No. of Privy Closets. |                      |                                     |                            |                         |                             |                                                    | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c.                  | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
| Haslingden (B)   | ... | ... | ... | ... | ... | ... | ... | ... | 8 | 8               | 272                   | 12                   | 1735                                | 4520                       | 2400                    | Half-cost                   | ...                                                | ...                            | ...                            | ...        | ...                           | ...                           | ...                            | ...                                          | ...                           | ...                           | ...                            | ...                            | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...</ |



TABLE 4—continued.

| URBAN DISTRICTS. |     | Privy Middens.  |                       | No. of Pail Closets. | No. of Ashpits (excluding middens). | No. of Freshwater Closets. | No. of Movable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.       |                                |                             |                               |                               |                                | TOTAL CONVERSIONS DURING 5 YEARS, 1928-1932. |                               |                               |                                |                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
|------------------|-----|-----------------|-----------------------|----------------------|-------------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------------------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|----------------------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|                  |     | No. of Middens. | No. of Privy Closets. |                      |                                     |                            |                         |                             |                                                    | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s.               | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
| Little Lever     | ... | ...             | 46                    | 66                   | 4                                   | 54                         | 1300                    | 1264                        | 109                                                | ...                            | 11                             | ...                         | ...                           | ...                           | 1                              | 154                                          | ...                           | 1                             | ...                            | ...                            | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...</ |

URBAN DISTRICTS.

| URBAN DISTRICTS.       |     |                       |     |                                |                                |                             |                               |                               |                                | Privy Middens.                 |                                | No. of Pail Closets. | No. of Ashpits (excluding middens). | No. of Freshwater Closets. | No. of Movable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.    |                               |                               |                                |                                |                                |                             | TOTAL CONVERSIONS DURING 5 YEARS 1928-1932. |                               |                                |                                |                                |                             |                               |
|------------------------|-----|-----------------------|-----|--------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------|-------------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------|---------------------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|
| No. of Middens.        |     | No. of Privy Closets. |     | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Fresh W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. |                      |                                     |                            |                         |                             |                                                    | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Fresh W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s.               | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Fresh W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. |
| Radcliffe              | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Rainford               | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Ramsbottom             | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Rawtenstall (B)        | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Rishton                | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Royton                 | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Skelmersdale           | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Standish-with-Langtree | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Stretford (B)          | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Swinton and Pendlebury | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Thornton Cleveleys     | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Tottington             | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Trawden                | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Turton                 | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Tyldesley              | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Ulverston              | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Upholland              | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |
| Urnston                | ... | ...                   | ... | ...                            | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                  | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                         | ...                           | ...                           | ...                            | ...                            | ...                            | ...                         | ...                                         | ...                           | ...                            | ...                            | ...                            |                             |                               |



TABLE 4—continued.

| URBAN DISTRICTS.       |     |                       |     |                      |                                |                                |                             |                               |                               | Privy Middens.                 |                                | No. of Ashpits (excluding middens). | No. of Freshwater Closets. | No. of Movable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.       |                             |                               |                               |                                |                                | TOTAL CONVERSIONS DURING 5 YEARS, 1928-1932. |                               |                                |      |      |           |      |
|------------------------|-----|-----------------------|-----|----------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|-------------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|----------------------------------------------|-------------------------------|--------------------------------|------|------|-----------|------|
| No. of Middens.        |     | No. of Privy Closets. |     | No. of Pail Closets. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Fresh W.C.'s. | Privy Closets to Fresh W.C.'s. |                                     |                            |                         |                             |                                                    | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Pail Closets to Fresh W.C.'s.                | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Fresh W.C.'s. |      |      |           |      |
| Walton-le-Dale         | ... | ...                   | ... |                      |                                |                                |                             |                               |                               |                                |                                | 26                                  | 28                         | 230                     | 70                          | 2900                                               |                                |                             |                               |                               |                                |                                |                                              |                               |                                | 3143 | 293  | Half-cost | 2    |
| Wardle                 | ... | ...                   | ... | 44                   | 44                             | 154                            | 6                           | 487                           | 654                           | 40                             | £4 per closet                  | 4                                   | ...                        | ...                     | ...                         | ...                                                | 3                              | 22                          | ...                           | ...                           | ...                            | ...                            | ...                                          | 41                            |                                |      |      |           |      |
| Waterloo-with-Seaforth | ... | ...                   | ... | ...                  | ...                            | 9                              | 33                          | 11726                         | 7771                          | ...                            | ...                            | ...                                 | ...                        | ...                     | ...                         | ...                                                | ...                            | ...                         | ...                           | ...                           | ...                            | ...                            | ...                                          | ...                           |                                |      |      |           |      |
| Westhoughton           | ... | ...                   | ... | 116                  | 168                            | 6                              | 568                         | 3829                          | 3522                          | 109                            | ...                            | 2                                   | ...                        | ...                     | ...                         | ...                                                | ...                            | 603                         | ...                           | ...                           | ...                            | ...                            | ...                                          | 2                             |                                |      |      |           |      |
| Whitefield             | ... | ...                   | ... | 45                   | 66                             | 39                             | 7                           | 3154                          | 2960                          | 147                            | Half-cost                      | 15                                  | ...                        | 1                       | 3                           | ...                                                | 4                              | 437                         | ...                           | ...                           | 3                              | ...                            | ...                                          | 7                             |                                |      |      |           |      |
| Whitworth              | ... | ...                   | ... | ...                  | ...                            | 59                             | ...                         | 1646                          | 1800                          | 191                            | Each case considered           | ...                                 | ...                        | ...                     | 297                         | ...                                                | ...                            | ...                         | ...                           | ...                           | 829                            | ...                            | ...                                          | ...                           |                                |      |      |           |      |
| Widnes (B)             | ... | ...                   | ... | 204                  | 206                            | ...                            | 51                          | 7877                          | 9315                          | 1438                           | Half-cost                      | 7                                   | ...                        | ...                     | ...                         | 8                                                  | ...                            | 89                          | ...                           | ...                           | ...                            | 12                             | ...                                          | ...                           |                                |      |      |           |      |
| Withnell               | ... | ...                   | ... | ...                  | ...                            | 334                            | 247                         | 434                           | 293                           | 44                             | Up to £4 10s. per closet       | ...                                 | ...                        | ...                     | 8                           | ...                                                | ...                            | ...                         | ...                           | ...                           | 126                            | ...                            | ...                                          | ...                           |                                |      |      |           |      |
| Worsley                | ... | ...                   | ... | 108                  | 175                            | 27                             | 266                         | 6265                          | 6188                          | 162                            | ...                            | ...                                 | ...                        | 5                       | ...                         | ...                                                | ...                            | 1364                        | ...                           | 17                            | ...                            | ...                            | ...                                          | 12                            |                                |      |      |           |      |
| Total Urban Districts  |     |                       |     |                      |                                |                                |                             |                               |                               | 8874                           | 13472                          | 18473                               | 36827                      | 347808                  | 359243                      | 82673                                              |                                | 1599                        | ...                           | 73                            | 979                            | 13                             | 490                                          | 10329                         | 7                              | 245  | 6359 | 17        | 2040 |
| RURAL DISTRICTS.       |     |                       |     |                      |                                |                                |                             |                               |                               |                                |                                |                                     |                            |                         |                             |                                                    |                                |                             |                               |                               |                                |                                |                                              |                               |                                |      |      |           |      |
| Blackburn              | ... | ...                   | ... | ...                  | ...                            | 806                            | ...                         | 2114                          | 1607                          | 81                             | Whole cost in Livesey          | ...                                 | ...                        | ...                     | 9                           | ...                                                | ...                            | 6                           | ...                           | ...                           | ...                            | ...                            | ...                                          | ...                           | ...                            |      |      |           |      |
| Burnley                | ... | ...                   | ... | ...                  | ...                            | 664                            | 1940                        | 1636                          | 2638                          | 2415                           | ...                            | ...                                 | ...                        | 4                       | 10                          | ...                                                | 3                              | 107                         | ...                           | 66                            | 167                            | ...                            | ...                                          | ...                           | ...                            | 10   |      |           |      |

RURAL DISTRICTS.

|                             | Privy Middens.  |                       | No. of Ashpits (excluding middens). | No. of Freshwater Closets. | No. of Movable Ashbins. | No. of Waste Water Closets. | Council's Contribution towards Cost of Conversion. | CONVERSIONS DURING 1933.       |                                |                             |                               |                               |                                                | TOTAL CONVERSIONS DURING 5 YEARS, 1928-1932. |                                |                                              |                               |                               |                                                |
|-----------------------------|-----------------|-----------------------|-------------------------------------|----------------------------|-------------------------|-----------------------------|----------------------------------------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|-------------------------------|------------------------------------------------|----------------------------------------------|--------------------------------|----------------------------------------------|-------------------------------|-------------------------------|------------------------------------------------|
|                             | No. of Middens. | No. of Privy Closets. |                                     |                            |                         |                             |                                                    | Privy Closets to Fresh W.C.'s. | Privy Closets to Waste W.C.'s. | Privy Closets to Pails, &c. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Pail Closets to Fresh W.C.'s. | Privy Closets to Fresh W.C.'s.               | Privy Closets to Waste W.C.'s. | Pails, &c. to Privy Closets to Fresh W.C.'s. | Pail Closets to Fresh W.C.'s. | Pail Closets to Waste W.C.'s. | Waste W.C.'s. to Pail Closets to Fresh W.C.'s. |
| Chorley                     | ...             | ...                   | ...                                 | ...                        | ...                     | ...                         | ...                                                | 10                             | ...                            | 6                           | ...                           | ...                           | ...                                            | 120                                          | ...                            | 52                                           | 41                            | ...                           | ...                                            |
| Clitheroe                   | ...             | ...                   | ...                                 | ...                        | No record               | 315                         | ...                                                | 10                             | ...                            | 2                           | ...                           | ...                           | 1                                              | 15                                           | ...                            | 3                                            | 9                             | ...                           | 2                                              |
| Fylde                       | ...             | ...                   | ...                                 | ...                        | ...                     | 14                          | ...                                                | 20                             | ...                            | ...                         | ...                           | ...                           | ...                                            | 95                                           | ...                            | ...                                          | 14                            | ...                           | 2                                              |
| Garstang                    | ...             | ...                   | ...                                 | ...                        | ...                     | ...                         | ...                                                | 6                              | ...                            | ...                         | ...                           | ...                           | ...                                            | 32                                           | ...                            | 30                                           | 36                            | ...                           | ...                                            |
| Lancaster                   | ...             | ...                   | ...                                 | ...                        | ...                     | 16                          | ...                                                | 3                              | ...                            | ...                         | 2                             | ...                           | ...                                            | 85                                           | ...                            | 33                                           | 10                            | ...                           | ...                                            |
| Limehurst                   | ...             | ...                   | ...                                 | ...                        | ...                     | 517                         | £4 per closet                                      | 20                             | ...                            | 6                           | ...                           | ...                           | ...                                            | 310                                          | ...                            | 93                                           | 188                           | ...                           | 4                                              |
| Lunesdale                   | ...             | ...                   | ...                                 | ...                        | ...                     | ...                         | ...                                                | 23                             | ...                            | 1                           | ...                           | ...                           | ...                                            | 178                                          | ...                            | 45                                           | 14                            | ...                           | ...                                            |
| Preston                     | ...             | ...                   | ...                                 | ...                        | ...                     | ...                         | Half-cost in 282 cases, whole cost in 357 cases    | 9                              | ...                            | ...                         | 206                           | ...                           | ...                                            | 91                                           | ...                            | 60                                           | 278                           | ...                           | ...                                            |
| Ulverston                   | ...             | ...                   | ...                                 | ...                        | ...                     | ...                         | ...                                                | 65                             | ...                            | ...                         | ...                           | ...                           | ...                                            | 304                                          | ...                            | ...                                          | 2                             | ...                           | ...                                            |
| Warrington                  | ...             | ...                   | ...                                 | ...                        | ...                     | 15                          | ...                                                | 2                              | ...                            | 10                          | 16                            | ...                           | ...                                            | 16                                           | ...                            | 73                                           | 80                            | ...                           | ...                                            |
| West Lancashire             | ...             | ...                   | ...                                 | ...                        | ...                     | 8                           | Half-cost in Aughton and Maghull                   | 21                             | ...                            | 12                          | 4                             | ...                           | ...                                            | 128                                          | ...                            | 39                                           | 43                            | ...                           | ...                                            |
| Whiston                     | ...             | ...                   | ...                                 | ...                        | ...                     | ...                         | Privies—Half-cost. Pails—Whole cost                | 17                             | ...                            | ...                         | 103                           | ...                           | ...                                            | 121                                          | ...                            | 3                                            | 133                           | ...                           | ...                                            |
| Wigan                       | ...             | ...                   | ...                                 | ...                        | ...                     | 1                           | ...                                                | ...                            | ...                            | 45                          | ...                           | ...                           | ...                                            | 22                                           | ...                            | 54                                           | ...                           | ...                           | ...                                            |
| Total Rural Districts...    | 12658           | 16306                 | 6760                                | 28914                      | 29377                   | 3396                        |                                                    | 206                            | ...                            | 86                          | 350                           | ...                           | 4                                              | 1630                                         | ...                            | 551                                          | 1015                          | ...                           | 18                                             |
| Total Administrative County | 21532           | 29778                 | 43378                               | 376722                     | 388620                  | 86069                       |                                                    | 1805                           | ...                            | 159                         | 1329                          | 13                            | 494                                            | 11959                                        | 7                              | 796                                          | 7374                          | 17                            | 2058                                           |



**Public Cleansing.**—Refuse collection and disposal, and public cleansing are, according to the local reports, undertaken in the County districts as follow :—

By local authority in 89 districts.

By authority and contract, or by contract only in 12 districts.

By authority, by contract, and/or by owners or occupiers in 10 districts.

The importance of a proper system of public cleansing is more generally recognised than formerly, but, as will be seen above, about 20 districts are yet without an efficient scheme. In about 60 districts the contents of privy middens are still removed in the day time. Motor vehicles for refuse removal have been provided in 76 County districts.

Briefly summarised the replies of local Medical Officers of Health to the Ministry's questions on this subject are :—

- (a) Method of collecting dry house refuse :— Chiefly by motor and covered carts. Ashbins in the majority of cases are emptied weekly ; ashpits vary from 3 to 4 weeks.
- (b) Method of collecting refuse from earth closets and privies :— By motor and covered carts. Period varies from 1 to 5 weeks.
- (c) Method of disposing of dry house refuse :— In 26 districts dealt with at destructor ; 25 districts by controlled tips ; in the majority of the remaining districts deposited on tips, and in a few instances on agricultural land.
- (d) Method of disposing of refuse from earth-closets and privies :— In the majority of districts refuse from earth-closets and privies used for manurial purposes ; in a few instances it is disposed of into the sewers or removed to the destructor.
- (e) The method of cleansing cesspools :— Special tumbler cart used in most districts where cesspools exist ; in a few instances cleansing of cesspools left to owners or occupiers.
- (f) Arrangements for disposal of cess-pool contents :— In the majority of districts used on land for manurial purposes, in a few instances disposed of into the sewers.

In March, 1933, the Ministry of Health by Circular 1311 drew attention to the cost of public cleansing, the need for special attention to the general organisation of the service, the possibilities in the way of obtaining income from refuse, etc., and many local reports contain references to the unnecessary extra work and cost imposed upon this service by the huge quantities of waste paper and other refuse which could readily be burned by householders.

The Report of the Committee on local expenditure (England and Wales) points out that even large urban authorities have as yet taken no steps to organise their system of public cleansing on a proper and businesslike basis. . . . Refuse must not be considered merely as useless material to be got rid of as cheaply as possible. A substantial income to set off against the collection and disposal is obtained from this source by many authorities.

Where refuse is disposed of on " tips " the question of care and control is an important one. Village dumps, and the methods of individual disposal, which are common in rural areas, call for regular supervision.

The following comments are extracted from the annual reports of local Medical Officers of Health :—

Atherton.—The amount of waste paper, packing and cardboard boxes from houses and shops shews no sign of decreasing in quantity, which is a matter for regret. There appears to be a growing tendency amongst the average householders to put more newspapers and vegetable matter in the ashbins. Potato peelings and other waste matter should be wrapped up in newspaper, placed at the back of the kitchen fire after the mid-day meal and covered with small coal. The fire would then require no attention for a number of hours, thus effecting a domestic economy. It is estimated that if each householder reduced the volume of refuse produced by one-twentieth, the resultant saving on refuse collection would represent £3 per week.

Great Crosby.—A notable improvement in the collection of house refuse was introduced during the year and in March the Pagefield system was put into operation. This comprises one heavy-oil motor wagon and four horse-drawn containers in place of the three old petrol wagons. The Pagefield system was worked entirely satisfactorily and has resulted in economy in working and a more efficient service for the collection and removal of refuse.

Haslingden (B).—Not only has the change over to the system of controlled tipping been a success from a financial point of view, but also from a sanitary standpoint.

Oswaldtwistle.—It is regrettable that the householders of the district do not exercise more care in the amount of refuse made. At present about one-third consists of paper and other combustible matter which could easily be destroyed in the firegrate, instead of adding to the cost of removal, and incidentally affecting the rates.

Ramsbottom.—The quantity of refuse appears to be growing in bulk year by year, principally due to the large amount of paper and combustible material which is put into the ashbins. By burning this in the firegrate, householders would not only help to reduce the quantity of refuse, but would help themselves by reducing their coal bills.

Ulverston.—It is satisfactory to know that, when what is known as the “Bradford system” is adopted, the process can be carried out in the immediate vicinity of occupied dwellings.

Waterloo-with-Seaforth.—The Pagefield system of refuse collection continues to give satisfaction, and the refuse is disposed of by controlled tipping.

Chorley (R).—The arrangements with private persons for their own scavenging is unsatisfactory as the place for the disposal of the refuse is always a difficulty.

West Lancashire (R).—The question of scavenging the townships of Netherton and Aintree in which urbanisation is taking place, day by day, must shortly engage the attention of the Health Committee. Residents are at present making their own arrangements with local carters. The long-awaited scavenging scheme for Maghull and the adjacent area of Lydiate is at last in operation and working satisfactorily. A scavenging scheme for the Moss Lane and Southport Road residential areas and also for Tarleton was inaugurated during the year.

REFUSE DESTRUCTORS.—Destructors have been provided in 27 districts, viz., Accrington (B), Brierfield, Chadderton, Chorley (B), Clitheroe (B), Colne (B), Crompton, Darwen (B), Droylsden, Eccles (B), Grange-over-Sands, Heywood (B), Irlam, Lancaster (B), Leigh (B), Litherland, Lytham Saint Anne's (B), Middleton (B), Morecambe and Heysham (B), Nelson (B), Ormskirk, Padiham, Prestwich, Radcliffe, Ramsbottom, Stretford (B), and Widnes (B). Trade refuse and offal from Barrowford are dealt with at the Nelson (B) destructor. At Swinton and Pendlebury the method of disposal has been changed to controlled tipping. At Eccles (B), where last year the use of the destructor was discontinued in favour of controlled tipping, it is now proposed to re-commence use of the destructor. The Medical Officers of Health of Haydock, Hindley, and Orrell recommend the provision of destructors; at Withnell the construction of a destructor is under consideration.

**Sanitary Inspection.**—The following table gives the number of premises visited (172,775), the defects or nuisances discovered (65,204), and the results of the action taken. The number of nuisances abated during the year 1933 was 59,025; notices served totalled 32,046, and legal proceedings were instituted in 22 cases.

#### SANITARY INSPECTIONS DURING 1933.

| URBAN DISTRICTS.               | No. of premises visited. | DEFECTS OR NUISANCES. |             | No. of NOTICES SERVED. |            | LEGAL PROCEEDINGS. |         |
|--------------------------------|--------------------------|-----------------------|-------------|------------------------|------------|--------------------|---------|
|                                |                          | No. discovered.       | No. abated. | In-formal.             | Statutory. | No.                | Result. |
| Abram ... ..                   | 711                      | 266                   | 238         | 31                     | 17         | ...                |         |
| Accrington (B) ... ..          | 5324                     | 2171                  | 2126        | 253                    | 80         | ...                |         |
| Adlington ... ..               | 43                       | 14                    | 14          | 14                     | ...        | ...                |         |
| Ashton-in-Makerfield ... ..    | 1400                     | 1202                  | 1175        | 308                    | 71         | ...                |         |
| Ashton-under-Lyne (B) ... ..   | 3724                     | 1008                  | 997         | 261                    | ...        | ...                |         |
| Aspull ... ..                  | 553                      | 994                   | 864         | 234                    | 90         | ...                |         |
| Atherton ... ..                | 1971                     | 674                   | 661         | 352                    | 137        | ...                |         |
| Audenshaw ... ..               | 1842                     | 267                   | 251         | 96                     | ...        | ...                |         |
| Bacup (B) ... ..               | 609                      | 375                   | 361         | 301                    | 27         | ...                |         |
| Barrowford ... ..              | 378                      | 100                   | 100         | 100                    | 2          | ...                |         |
| Billinge and Winstanley ... .. | 215                      | 114                   | 113         | 102                    | 1          | ...                |         |
| Blackrod ... ..                | 221                      | 286                   | 260         | 40                     | 12         | ...                |         |
| Brierfield ... ..              | 82                       | 41                    | 28          | 41                     | ...        | ...                |         |
| Carnforth ... ..               | 88                       | 78                    | 67          | 44                     | 19         | ...                |         |
| Chadderton ... ..              | 1187                     | 730                   | 707         | 730                    | 15         | ...                |         |
| Chorley (B) ... ..             | 2615                     | 1364                  | 1167        | 1364                   | 97         | ...                |         |
| Church ... ..                  | 125                      | 55                    | 53          | 55                     | ...        | ...                |         |
| Clayton-le-Moors ... ..        | 214                      | 354                   | 330         | 97                     | 3          | ...                |         |



SANITARY INSPECTIONS—*continued.*

| URBAN DISTRICTS.               | No. of premises<br>visited. | DEFECTS<br>OR<br>NUISANCES. |                | No. OF<br>NOTICES<br>SERVED. |                 | LEGAL PROCEEDINGS. |                           |
|--------------------------------|-----------------------------|-----------------------------|----------------|------------------------------|-----------------|--------------------|---------------------------|
|                                |                             | No. dis-<br>covered.        | No.<br>abated. | In-<br>formal.               | Statu-<br>tory. | No.                | Result.                   |
| Clitheroe (B) ... ..           | 2653                        | 237                         | 113            | 230                          | 1               | ...                |                           |
| Colne (B) ... ..               | 6988                        | 282                         | 261            | 233                          | 101             | ...                |                           |
| Crompton ... ..                | 3157                        | 383                         | 312            | 200                          | 9               | ...                |                           |
| Croston ... ..                 | 16                          | 16                          | 16             | 16                           | ...             | ...                |                           |
| Dalton-in-Furness ... ..       | 1388                        | 76                          | 106            | 76                           | 9               | ...                |                           |
| Darwen (B) ... ..              | 4948                        | 2902                        | 2583           | 2873                         | 229             | ...                |                           |
| Denton ... ..                  | 3106                        | 316                         | 424            | 222                          | 1               | ...                |                           |
| Droylsden ... ..               | 1400                        | 384                         | 284            | 372                          | 12              | ...                |                           |
| Eccles (B) ... ..              | 2352                        | 1962                        | 1808           | 1201                         | 213             | ...                |                           |
| Failsworth ... ..              | 2815                        | 1210                        | 1200           | 352                          | 135             | ...                |                           |
| Farnworth ... ..               | 1828                        | 4587                        | 4341           | 737                          | 273             | 1                  | Fined 5/-.                |
| Fleetwood (B) ... ..           | 4987                        | 1378                        | 996            | 197                          | 3               | ...                |                           |
| Formby ... ..                  | 285                         | 83                          | 77             | 83                           | 10              | ...                |                           |
| Fulwood ... ..                 | 3                           | 2                           | 2              | ...                          | ...             | ...                |                           |
| Golborne ... ..                | 1188                        | 279                         | 274            | 221                          | 12              | ...                |                           |
| Grange-over-Sands ... ..       | 9                           | 9                           | 9              | 9                            | ...             | ...                |                           |
| Great Crosby ... ..            | 1717                        | 932                         | 908            | 263                          | 5               | ...                |                           |
| Great Harwood ... ..           | 296                         | 214                         | 214            | 34                           | ...             | ...                |                           |
| Haslingden (B)... ..           | 3356                        | 1696                        | 497            | 341                          | 27              | ...                |                           |
| Haydock ... ..                 | 1438                        | 293                         | 293            | 273                          | 1               | ...                |                           |
| Heywood (B) ... ..             | 3227                        | 969                         | 856            | 324                          | ...             | ...                |                           |
| Hindley ... ..                 | 813                         | 1414                        | 1135           | 116                          | 79              | ...                |                           |
| Horwich ... ..                 | 2822                        | 902                         | 867            | 416                          | 17              | ...                |                           |
| Huyton-with-Roby ... ..        | 559                         | 198                         | 171            | 119                          | 17              | ...                |                           |
| Ince-in-Makerfield ... ..      | 1401                        | 1560                        | 1520           | 526                          | 14              | 4                  | Orders made.              |
| Irlam ... ..                   | 618                         | 1296                        | 1149           | 351                          | 28              | ...                |                           |
| Kearsley ... ..                | 332                         | 192                         | 139            | 42                           | 6               | ...                |                           |
| Kirkham ... ..                 | 286                         | 47                          | 45             | 38                           | 1               | ...                |                           |
| Lancaster (B) ... ..           | 3363                        | 1243                        | 1030           | 425                          | 92              | 1                  | Costs and order to abate. |
| Lees ... ..                    | 384                         | 141                         | 130            | 27                           | ...             | ...                |                           |
| Leigh (B) ... ..               | 2363                        | 1287                        | 1256           | 561                          | 25              | ...                |                           |
| Leyland ... ..                 | 196                         | 67                          | 27             | 67                           | 11              | ...                |                           |
| Litherland ... ..              | 1034                        | 1923                        | 1909           | 745                          | 15              | ...                |                           |
| Littleborough ... ..           | 304                         | 548                         | 499            | 31                           | 2               | ...                |                           |
| *Little Hulton ... ..          | 519                         | 20                          | 20             | 14                           | ...             | ...                |                           |
| Little Lever ... ..            | 99                          | 72                          | 63             | 71                           | 1               | ...                |                           |
| Longridge ... ..               | 504                         | 21                          | 21             | 21                           | ...             | ...                |                           |
| Lytham Saint Anne's (B) ... .. | 2485                        | 591                         | 570            | 240                          | ...             | ...                |                           |
| Middleton (B) ... ..           | 3910                        | 533                         | 349            | 378                          | 2               | 1                  | Case adjourned.           |
| Milnrow ... ..                 | 1603                        | 592                         | 563            | 292                          | 4               | ...                |                           |
| Morecambe and Heysham (B)      | 2750                        | 279                         | 243            | 28                           | 6               | ...                |                           |

\* District incorporated with Worsley, 1st April 1933.

SANITARY INSPECTIONS—*continued.*

| URBAN DISTRICTS.           | No. of premises visited. | DEFECTS OR NUISANCES. |             | No. OF NOTICES SERVED. |             | LEGAL PROCEEDINGS. |                                                                         |
|----------------------------|--------------------------|-----------------------|-------------|------------------------|-------------|--------------------|-------------------------------------------------------------------------|
|                            |                          | No. dis-covered.      | No. abated. | In-formal.             | Statu-tory. | No.                | Result.                                                                 |
| Mossley (B) ... ..         | 110                      | 93                    | 85          | 93                     | 2           | ...                |                                                                         |
| Nelson (B) ... ..          | 4511                     | 211                   | 208         | 156                    | ...         | ...                |                                                                         |
| Newton-in-Makerfield ...   | 1528                     | 229                   | 217         | 140                    | 16          | ...                |                                                                         |
| *Norden ... ..             | 104                      | 92                    | 81          | 37                     | 11          | ...                |                                                                         |
| Ormskirk ... ..            | 476                      | 254                   | 230         | 254                    | 29          | ...                |                                                                         |
| Orrell ... ..              | 374                      | 40                    | 38          | 40                     | 7           | ...                |                                                                         |
| Oswaldtwistle ... ..       | 896                      | 293                   | 265         | 321                    | 20          | 7                  | Orders made.                                                            |
| Padiham ... ..             | 4581                     | 1622                  | 1486        | 484                    | 71          | ...                |                                                                         |
| Poulton-le-Fylde ... ..    | 99                       | 40                    | 35          | 25                     | 2           | ...                |                                                                         |
| Preesall ... ..            | 273                      | 178                   | 151         | 40                     | 82          | 1                  | Order refused.                                                          |
| Prescot ... ..             | 715                      | 168                   | 168         | 312                    | 58          | 1                  | 28 days to complete work.                                               |
| Prestwich ... ..           | 811                      | 1529                  | 1438        | 694                    | 52          | ...                |                                                                         |
| Radcliffe ... ..           | 2032                     | 406                   | 390         | 384                    | 22          | ...                |                                                                         |
| Rainford ... ..            | 56                       | 109                   | 109         | 48                     | ...         | ...                |                                                                         |
| Ramsbottom ... ..          | 2702                     | 944                   | 877         | 136                    | 4           | ...                |                                                                         |
| Rawtenstall (B) ... ..     | 449                      | 449                   | 453         | 500                    | ...         | ...                |                                                                         |
| Rishton ... ..             | 1000                     | 256                   | 220         | 60                     | 10          | ...                |                                                                         |
| Royton ... ..              | 227                      | 227                   | 220         | 134                    | 16          | ...                |                                                                         |
| Skelmersdale ... ..        | 235                      | 152                   | 152         | 152                    | ...         | ...                |                                                                         |
| Standish-with-Langtree ... | 684                      | 183                   | 170         | 82                     | ...         | ...                |                                                                         |
| Stretford (B) ... ..       | 2412                     | 2400                  | 2400        | 291                    | 40          | ...                |                                                                         |
| Swinton and Pendlebury ... | 3143                     | 1322                  | 1071        | 1322                   | 45          | ...                |                                                                         |
| Thornton Cleveleys ... ..  | 1254                     | 403                   | 403         | 398                    | 5           | ...                |                                                                         |
| Tottington ... ..          | 410                      | 177                   | 168         | 14                     | 42          | ...                |                                                                         |
| Trawden ... ..             | 15                       | 11                    | 11          | 11                     | ...         | ...                |                                                                         |
| Turton ... ..              | 3794                     | 473                   | 473         | 133                    | ...         | ...                |                                                                         |
| Tyldesley ... ..           | 1489                     | 94                    | 87          | 52                     | ...         | ...                |                                                                         |
| Ulverston ... ..           | 129                      | 129                   | 91          | 97                     | ...         | ...                |                                                                         |
| Upholland ... ..           | 216                      | 72                    | 72          | 59                     | 2           | ...                |                                                                         |
| Urmston ... ..             | 756                      | 225                   | 196         | 101                    | 5           | ...                |                                                                         |
| Walton-le-Dale... ..       | 2233                     | 677                   | 544         | 625                    | 52          | ...                |                                                                         |
| Wardle ... ..              | 461                      | 215                   | 70          | 215                    | ...         | ...                |                                                                         |
| Waterloo-with-Seaforth ... | 7165                     | 3006                  | 2856        | 860                    | 142         | 2                  | 1 Withdrawn on payment of costs.<br>1 Work done by L.A.—Owners charged. |
| Westhoughton ... ..        | 2809                     | 295                   | 281         | 280                    | 32          | 1                  | Order to abate, with costs.                                             |
| Whitefield ... ..          | 3147                     | 1059                  | 1008        | 391                    | 2           | ...                |                                                                         |
| Whitworth ... ..           | 268                      | 288                   | 280         | 74                     | ...         | ...                |                                                                         |
| Widnes (B) ... ..          | 6921                     | 2434                  | 2306        | 815                    | 49          | ...                |                                                                         |
| Withnell ... ..            | 70                       | 15                    | 15          | 10                     | ...         | ...                |                                                                         |
| Worsley ... ..             | 2535                     | 284                   | 213         | 328                    | 17          | ...                |                                                                         |
| Total Urban Districts ...  | 155894                   | 62283                 | 56330       | 27356                  | 2767        | 19                 |                                                                         |

\* District abolished 1st October, 1933.



| RURAL DISTRICTS.             | No. of premises<br>visited. | DEFECTS<br>OR<br>NUISANCES. |                | No. OF<br>NOTICES<br>SERVED. |                 | LEGAL PROCEEDINGS. |                                                           |
|------------------------------|-----------------------------|-----------------------------|----------------|------------------------------|-----------------|--------------------|-----------------------------------------------------------|
|                              |                             | No. dis-<br>covered.        | No.<br>abated. | In-<br>formal.               | Statu-<br>tory. | No.                | Result.                                                   |
| *Barton-upon-Irwell ... ..   | 78                          | 26                          | 26             | 23                           | ...             | ...                |                                                           |
| Blackburn ... ..             | 1301                        | 85                          | 85             | 61                           | ...             | ...                |                                                           |
| Burnley ... ..               | 411                         | 210                         | 210            | 53                           | 22              | ...                |                                                           |
| †Bury ... ..                 | 180                         | 42                          | 27             | 17                           | 3               | ...                |                                                           |
| Chorley ... ..               | 900                         | 126                         | 120            | 78                           | 5               | ...                |                                                           |
| Clitheroe ... ..             | 1387                        | 118                         | 113            | 21                           | 3               | ...                |                                                           |
| Fylde ... ..                 | 389                         | 194                         | 186            | 194                          | 23              | 2                  | 1 Fined £1 and £2 costs.<br>1 Fined 10/- and 5/- per day. |
| Garstang ... ..              | 1197                        | 84                          | 82             | 83                           | 6               | ...                |                                                           |
| Lancaster ... ..             | 1095                        | 110                         | 96             | 83                           | 4               | ...                |                                                           |
| ‡Leigh ... ..                | 1022                        | 309                         | 300            | 120                          | 7               | ...                |                                                           |
| Limehurst ... ..             | 3268                        | 230                         | 209            | 115                          | 22              | ...                |                                                           |
| Lunesdale ... ..             | 100                         | 90                          | 85             | 35                           | 2               | ...                |                                                           |
| Preston ... ..               | 1333                        | 107                         | 101            | 60                           | 39              | ...                |                                                           |
| Ulverston ... ..             | 2046                        | 233                         | 178            | 233                          | 40              | ...                |                                                           |
| Warrington ... ..            | 1432                        | 338                         | 312            | 40                           | 132             | ...                |                                                           |
| West Lancashire ... ..       | 244                         | 355                         | 333            | 83                           | 2               | ...                |                                                           |
| Whiston ... ..               | 157                         | 115                         | 110            | 115                          | 3               | 1                  | To pay costs.                                             |
| Wigan ... ..                 | 341                         | 149                         | 122            | 192                          | ...             | ...                |                                                           |
| Total Rural Districts ... .. | 16881                       | 2921                        | 2695           | 1606                         | 313             | 3                  |                                                           |
| Total Administrative County  | 172775                      | 65204                       | 59025          | 28962                        | 3084            | 22                 |                                                           |

Districts abolished.—\* 1st April, 1933; † Part 1st April and part 1st October, 1933; ‡ 1st October, 1933.

**Smoke Abatement.**—The following table shows the action taken by local authorities to control the nuisance from excessive smoke pollution, and gives the number of smoke observations (2,497) taken during the year. In 1932 the observations numbered 2,597.

SMOKE OBSERVATIONS.

| URBAN DISTRICTS.               |     |     |     | No. of<br>Smoke<br>Observa-<br>tions. | Time<br>limit<br>allowed.<br>Minutes<br>per hour. | URBAN DISTRICTS.         |     |     |     | No. of<br>Smoke<br>Observa-<br>tions. | Time<br>limit<br>allowed.<br>Minutes<br>per hour. |
|--------------------------------|-----|-----|-----|---------------------------------------|---------------------------------------------------|--------------------------|-----|-----|-----|---------------------------------------|---------------------------------------------------|
| Abram ... ..                   | ... | ... | ... | 4                                     | 3                                                 | Carnforth ... ..         | ... | ... | ... | ...                                   | ...                                               |
| Accrington (B) ... ..          | ... | ... | ... | 4                                     | 3 to 7                                            | Chadderton ... ..        | ... | ... | ... | 23                                    | *2 to 4                                           |
| Adlington ... ..               | ... | ... | ... | ...                                   | 12                                                | Chorley (B) ... ..       | ... | ... | ... | 34                                    | ...                                               |
| Ashton-in-Makerfield ... ..    | ... | ... | ... | ...                                   | 8                                                 | Church ... ..            | ... | ... | ... | 6                                     | 8                                                 |
| Ashton-under-Lyne (B) ... ..   | ... | ... | ... | 18                                    | *2                                                | Clayton-le-Moors ... ..  | ... | ... | ... | 2                                     | 10                                                |
| Aspull ... ..                  | ... | ... | ... | ...                                   | 5                                                 | Clitheroe (B) ... ..     | ... | ... | ... | 3                                     | ...                                               |
| Atherton ... ..                | ... | ... | ... | 26                                    | *2½                                               | Colne (B) ... ..         | ... | ... | ... | 202                                   | 5 to 10                                           |
| Audenshaw ... ..               | ... | ... | ... | 4                                     | 4                                                 | Crompton ... ..          | ... | ... | ... | 28                                    | *3                                                |
| Bacup (B) ... ..               | ... | ... | ... | 5                                     | 10                                                | Croston ... ..           | ... | ... | ... | ...                                   | ...                                               |
| Barrowford ... ..              | ... | ... | ... | 12                                    | 10                                                | Dalton-in-Furness ... .. | ... | ... | ... | ...                                   | 15                                                |
| Billinge and Winstanley ... .. | ... | ... | ... | ...                                   | 10                                                | Darwen (B) ... ..        | ... | ... | ... | 20                                    | 5 to 7                                            |
| Blackrod ... ..                | ... | ... | ... | 4                                     | 6                                                 | Denton ... ..            | ... | ... | ... | 2                                     | 4                                                 |
| Brierfield ... ..              | ... | ... | ... | ...                                   | *2                                                | Droylsden ... ..         | ... | ... | ... | 185                                   | *2                                                |

\* Minutes per half hour.

SMOKE OBSERVATIONS—*continued.*

| URBAN DISTRICTS.                 | No. of<br>Smoke<br>Observa-<br>tions. | Time<br>limit<br>allowed.<br>Minutes<br>per hour. | URBAN DISTRICTS.                   | No. of<br>Smoke<br>Observa-<br>tions. | Time<br>limit<br>allowed.<br>Minutes<br>per hour. |
|----------------------------------|---------------------------------------|---------------------------------------------------|------------------------------------|---------------------------------------|---------------------------------------------------|
| Eccles (B) ... ..                | 12                                    | *2                                                | Ramsbottom ... ..                  | 2                                     | 6                                                 |
| Failsworth ... ..                | 90                                    | *2                                                | Rawtenstall (B) ... ..             | 3                                     | 2                                                 |
| Farnworth ... ..                 | 86                                    | *2                                                | Rishton ... ..                     | 10                                    | 5                                                 |
| Fleetwood (B) ... ..             | ...                                   | ...                                               | Royton ... ..                      | 17                                    | *3 to 4                                           |
| Formby ... ..                    | 10                                    | 4                                                 | Skelmersdale ... ..                | ...                                   | ...                                               |
| Fulwood ... ..                   | ...                                   | ...                                               | Standish-with-Langtree ... ..      | ...                                   | ...                                               |
| Golborne ... ..                  | 4                                     | 2                                                 | Stretford (B) ... ..               | 26                                    | *2                                                |
| Grange-over-Sands ... ..         | ...                                   | 15                                                | Swinton and Pendlebury ... ..      | 213                                   | *2                                                |
| Great Crosby... ..               | 2                                     | 4                                                 | Thornton Cleveleys ... ..          | 4                                     | 4                                                 |
| Great Harwood ... ..             | ...                                   | 10                                                | Tottington ... ..                  | 10                                    | 12                                                |
| Haslingden (B) ... ..            | 113                                   | *2                                                | Trawden ... ..                     | ...                                   | ...                                               |
| Haydock ... ..                   | ...                                   | ...                                               | Turton ... ..                      | 37                                    | 6                                                 |
| Heywood (B) ... ..               | 105                                   | *3                                                | Tyldesley ... ..                   | 19                                    | *4                                                |
| Hindley ... ..                   | 11                                    | 5                                                 | Ulverston ... ..                   | ...                                   | 15                                                |
| Horwich ... ..                   | 33                                    | *5                                                | Upholland ... ..                   | ...                                   | 5                                                 |
| Huyton-with-Roby ... ..          | ...                                   | ...                                               | Urmston ... ..                     | 19                                    | ...                                               |
| Ince-in-Makerfield ... ..        | ...                                   | ...                                               | Walton-le-Dale ... ..              | ...                                   | ...                                               |
| Irlam ... ..                     | 29                                    | ...                                               | Wardle ... ..                      | 15                                    | 5                                                 |
| Kearsley ... ..                  | 4                                     | *2                                                | Waterloo-with-Seaforth ... ..      | 4                                     | 4                                                 |
| Kirkham ... ..                   | 4                                     | 6                                                 | Westhoughton ... ..                | 5                                     | *2                                                |
| Lancaster (B) ... ..             | 8                                     | ...                                               | Whitefield ... ..                  | 17                                    | ...                                               |
| Lees ... ..                      | 7                                     | 4                                                 | Whitworth ... ..                   | ...                                   | *5                                                |
| Leigh (B) ... ..                 | 109                                   | *2                                                | Widnes (B) ... ..                  | ...                                   | ...                                               |
| Leyland ... ..                   | ...                                   | 2                                                 | Withnell ... ..                    | 5                                     | 6                                                 |
| Litherland ... ..                | 10                                    | 4                                                 | Worsley ... ..                     | 35                                    | *2                                                |
| Littleborough ... ..             | 100                                   | *2                                                | Total Urban Districts ... ..       | 2441                                  | ...                                               |
| ¶ Little Hulton ... ..           | ...                                   | *2                                                | RURAL DISTRICTS.                   |                                       |                                                   |
| Little Lever ... ..              | 5                                     | *2                                                | †Barton-upon-Irwell ... ..         | ...                                   | ...                                               |
| Longridge ... ..                 | 40                                    | ...                                               | Blackburn ... ..                   | 19                                    | ...                                               |
| Lytham Saint Anne's (B) ... ..   | 140                                   | *2½                                               | Burnley ... ..                     | 4                                     | *5                                                |
| Middleton (B) ... ..             | 107                                   | 4                                                 | ‡Bury ... ..                       | 7                                     | 5                                                 |
| Milnrow ... ..                   | 12                                    | *2                                                | Chorley ... ..                     | ...                                   | 8                                                 |
| Morecambe and Heysham (B) ... .. | 2                                     | *2                                                | Clitheroe ... ..                   | 3                                     | ...                                               |
| Mossley (B) ... ..               | 10                                    | 10                                                | Fylde ... ..                       | ...                                   | ...                                               |
| Nelson (B) ... ..                | 163                                   | *5                                                | Garstang ... ..                    | 10                                    | ...                                               |
| Newton-in-Makerfield ... ..      | 20                                    | 4                                                 | Lancaster ... ..                   | ...                                   | ...                                               |
| §Norden ... ..                   | ...                                   | *2                                                | §Leigh ... ..                      | 13                                    | 6                                                 |
| Ormskirk ... ..                  | 25                                    | 3                                                 | Limehurst ... ..                   | ...                                   | 3                                                 |
| Orfell ... ..                    | ...                                   | ...                                               | Lunesdale ... ..                   | ...                                   | ...                                               |
| Oswaldtwistle ... ..             | 6                                     | 4 to 7                                            | Preston ... ..                     | ...                                   | ...                                               |
| Padiham ... ..                   | 19                                    | *2                                                | Ulverston ... ..                   | ...                                   | 15                                                |
| Poulton-le-Fylde ... ..          | ...                                   | ...                                               | Warrington ... ..                  | ...                                   | *2                                                |
| Preesall ... ..                  | 12                                    | 3                                                 | West Lancashire ... ..             | ...                                   | ...                                               |
| Prescot ... ..                   | 86                                    | ...                                               | Whiston ... ..                     | ...                                   | ...                                               |
| Prestwich ... ..                 | 10                                    | 4                                                 | Wigan ... ..                       | ...                                   | ...                                               |
| Radcliffe ... ..                 | 24                                    | 4 to 6                                            | Total Rural Districts ... ..       | 56                                    | ...                                               |
| Rainford ... ..                  | ...                                   | ...                                               | Total Administrative County ... .. | 2497                                  | ...                                               |

\* Minutes per half hour. ¶ District incorporated with Worsley, 1st April, 1933.

Districts abolished.—† 1st April, 1933; ‡ part 1st April and part 1st October, 1933; § 1st October, 1933.



The local health officers in some districts have had interviews with works managers and boiler attendants, and in a few districts cards "Hints to stokers" have been issued. In another area, whenever smoke in excess is noticed the firm is notified at once either personally or by telephone.

Local comments include :—

Failsworth.—The appeal made by means of pamphlets in 1929 to all the manufacturers of the district, inviting and asking for their co-operation in the matter, with a view to a united effort being made to abolish the emission of black smoke from factory chimneys, has helped considerably in that direction.

Haslingden (B).—In the late autumn, an attempt was made to form an evening class for boiler firemen and arrangements were made for the services of a lecturer. The response was so poor however that the idea had to be abandoned.

Middleton (B).—Classes for boilermen and stokers were discussed during the year, and a course of lectures arranged at the Manchester College of Technology on fuel economy and smoke abatement.

**Premises and Occupations which can be controlled by Byelaws or Regulations.—OFFENSIVE TRADES.**—Offensive trades have been established in about 69 districts, the premises numbering 562. These are chiefly tripe boilers, gut serapers, tanners or leather dressers, fat melters and oil works, soap boilers, etc. The Preesall report contains a reference to a recurrent nuisance from the fish meal works in a neighbouring district.

**RAG FLOCK ACTS, 1911 AND 1928.**—Action under these Acts is reported from Chadderton, Chorley (B), Colne (B), Oswaldtwistle, etc.

**FACTORIES, WORKSHOPS AND WORKPLACES.**—The table below is a summary of the action taken in the County districts during the year 1933, and shows the number of inspections made, and the defects found :—

FACTORIES, WORKSHOPS AND WORKPLACES.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.  
INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

| Premises.                                              | Number of    |                  |                       |
|--------------------------------------------------------|--------------|------------------|-----------------------|
|                                                        | Inspections. | Written Notices. | Occupiers prosecuted. |
| Factories ... ..<br>(Including Factory Laundries)      | 3337         | 177              | ...                   |
| Workshops ... ..<br>(Including Workshop Laundries)     | 7115         | 166              | ...                   |
| Workplaces ... ..<br>(Other than Outworkers' premises) | 2183         | 62               | ...                   |
| TOTAL ... ..                                           | 12635        | 405              | ...                   |

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

| Particulars.                                                                                                                                                                           | Number of Defects.             |           |                             | Number of offences in respect to which prosecutions were instituted. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------|-----------------------------|----------------------------------------------------------------------|
|                                                                                                                                                                                        | Found.                         | Remedied. | Referred to H.M. Inspector. |                                                                      |
| <i>Nuisances under the Public Health Acts :—*</i>                                                                                                                                      |                                |           |                             |                                                                      |
| Want of cleanliness ... ..                                                                                                                                                             | 434                            | 387       | 6                           | ...                                                                  |
| Want of ventilation ... ..                                                                                                                                                             | 34                             | 33        | 1                           | ...                                                                  |
| Overcrowding ... ..                                                                                                                                                                    | 1                              | 1         | ...                         | ...                                                                  |
| Want of drainage of floors ... ..                                                                                                                                                      | 29                             | 29        | ...                         | ...                                                                  |
| Other nuisances ... ..                                                                                                                                                                 | 297                            | 286       | 2                           | ...                                                                  |
| Sanitary accommodation {                                                                                                                                                               | insufficient ... ..            | 47        | 38                          | 2                                                                    |
|                                                                                                                                                                                        | unsuitable or defective ... .. | 109       | 101                         | 4                                                                    |
|                                                                                                                                                                                        | not separate for sexes ... ..  | 14        | 14                          | ...                                                                  |
| <i>Offences under the Factory and Workshop Acts :—</i>                                                                                                                                 |                                |           |                             |                                                                      |
| Illegal occupation of underground bakehouse (s. 101) ... ..                                                                                                                            | ...                            | ...       | ...                         | ...                                                                  |
| Other Offences ... ..                                                                                                                                                                  | 67                             | 67        | 3                           | ...                                                                  |
| (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.) |                                |           |                             |                                                                      |
| TOTAL ... ..                                                                                                                                                                           | 1032                           | 956       | 18                          | ...                                                                  |

\* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

**COMMON LODGING HOUSES.**—The local reports show that there are 75 common lodging houses in 32 districts ; the majority are described as “fairly good.” Unsatisfactory premises are reported at Colne (B) ; two are in a compulsory purchase area.

**HOUSES LET IN LODGINGS.**—Reference is made in 22 districts to this class of accommodation. New bye-laws have been adopted at Leigh (B), and application for approval has been made at Ashton-under-Lyne (B). The local Medical Officers of Health repeat that bye-laws are required at Chorley (B), Great Harwood and Morecambe and Heysham (B).

**TENTS, VANS, SHEDS, ETC.**—Where these exist, regular supervision apparently takes place. In a number of districts steps have been taken to remove or abolish the structures. Legal proceedings were found necessary at Oswaldtwistle—seven cases. At Swinton and Pendlebury the Medical Officer of Health reports the bye-laws are inadequate. A concerted attack on van habitations was made during 1933, and 12 were abolished. The Council now propose to deal with the remaining caravans as individual unfit houses under Section 19 of the Housing Act, 1930, and it is anticipated that every caravan in the district will cease to be used for human habitation during 1934, and the occupants re-housed in the new municipal houses erected for the purpose. It is again reported that bye-laws are required at Great Harwood, Morecambe and Heysham (B), Widnes (B), Garstang (R), etc. Underground sleeping rooms have received attention at Dalton-in-Furness, Stretford (B), etc.

**Canal Boats.**—Inspections of canal boats—187 in number—are reported from 13 districts ; 12 infringements were noted.

**Schools.**—The sanitary condition and water supply of schools are referred to in each district report. On the whole they are classed as good or satisfactory—some are described as fair. In a few instances yard surfaces need repair, and the sanitary accommodation calls for improvement.

**Chief Sanitary Requirements of Districts.**—The information given under this head is extracted from the reports of local Medical Officers of Health.

#### CHIEF SANITARY REQUIREMENTS.

| URBAN DISTRICTS.        |     |     |     |     |     | CHIEF SANITARY REQUIREMENTS.                                                                                                                                                      |
|-------------------------|-----|-----|-----|-----|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abram                   | ... | ... | ... | ... | ... | Conversion of privies to fresh water closets.                                                                                                                                     |
| Accrington (B)          | ... | ... | ... | ... | ... | Trapping of sink waste pipes ; abolition of street gully emptying by hand and substitution of mechanical gully cleansing.                                                         |
| Adlington               | ... | ... | ... | ... | ... | Paving of private streets and back passages.                                                                                                                                      |
| Ashton-in-Makerfield    | ... | ... | ... | ... | ... | Increased water supply in order to convert pail closets to fresh water closets.                                                                                                   |
| Ashton-under-Lyne (B)   | ... | ... | ... | ... | ... | Additional housing accommodation.                                                                                                                                                 |
| Aspull                  | ... | ... | ... | ... | ... | Conversion of privies to fresh water closets. Paving of back yards, and repairs to property.                                                                                      |
| Atherton                | ... | ... | ... | ... | ... | Paving of back streets. Provision of more houses.                                                                                                                                 |
| Audenshaw               | ... | ... | ... | ... | ... | .....                                                                                                                                                                             |
| Bacup (B)               | ... | ... | ... | ... | ... | Provision of public abattoir.                                                                                                                                                     |
| Barrowford              | ... | ... | ... | ... | ... | .....                                                                                                                                                                             |
| Billinge and Winstanley | ... | ... | ... | ... | ... | Development of new source of water supply (at present under investigation). Extension of sewage disposal area. Hospital provision for infectious cases (arrangements being made). |
| Blackrod                | ... | ... | ... | ... | ... | Conversion of privies. General property repairs.                                                                                                                                  |
| Brierfield              | ... | ... | ... | ... | ... | Attention to certain private streets.                                                                                                                                             |
| Carnforth               | ... | ... | ... | ... | ... | Lower Crag Bank sewer in course of construction.                                                                                                                                  |
| Chadderton              | ... | ... | ... | ... | ... | Conversion of pail closets and abolition of open ashpits.                                                                                                                         |
| Chorley (B)             | ... | ... | ... | ... | ... | Public mortuary.                                                                                                                                                                  |
| Church                  | ... | ... | ... | ... | ... | Abolition of pail closets and ashpits.                                                                                                                                            |



CHIEF SANITARY REQUIREMENTS—*continued.*

| URBAN DISTRICTS.   |     |     |     |     | CHIEF SANITARY REQUIREMENTS.                                                                                                                                                                                 |
|--------------------|-----|-----|-----|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clayton-le-Moors   | ... | ... | ... | ... | Erection of more houses for displaced tenants from insanitary houses.                                                                                                                                        |
| Clitheroe (B)      | ... | ... | ... | ... | Additional houses of smaller type.                                                                                                                                                                           |
| Colne (B)          | ... | ... | ... | ... | Clearance of slum areas.                                                                                                                                                                                     |
| Crompton           | ... | ... | ... | ... | Demolition of insanitary property. Building of additional houses. Smoke abatement.                                                                                                                           |
| Croston            | ... | ... | ... | ... | More houses. Extension of sewer. Improvement of sewage outfall works. Conversion of privies.                                                                                                                 |
| Dalton-in-Furness  | ... | ... | ... | ... | Water supplies to out-lying districts.                                                                                                                                                                       |
| Darwen (B)         | ... | ... | ... | ... | Pitching, paving and arching over of bed of River Darwen in vicinity of dwelling-houses and shops.                                                                                                           |
| Denton             | ... | ... | ... | ... | Abolition of remaining privy middens, waste-water and hand flushed closets. Paving of back passages. Steam disinfecter. Public abattoir. Abatement of smoke nuisance. More houses of the working class type. |
| Droylsden          | ... | ... | ... | ... | Paving of private streets and back passages.                                                                                                                                                                 |
| Eccles (B)         | ... | ... | ... | ... | Increased housing accommodation.                                                                                                                                                                             |
| Failsworth         | ... | ... | ... | ... | Paving, metalling and kerbing of private streets and passages.                                                                                                                                               |
| Farnworth          | ... | ... | ... | ... | More houses and demolition of old ones.                                                                                                                                                                      |
| Fleetwood (B)      | ... | ... | ... | ... | New mortuary. New abattoir.                                                                                                                                                                                  |
| Formby             | ... | ... | ... | ... | Extension of sewers and abolition of cesspools, privies and pail closets where possible.                                                                                                                     |
| Fulwood            | ... | ... | ... | ... | .....                                                                                                                                                                                                        |
| Golborne           | ... | ... | ... | ... | Public sanitary conveniences. Paving of back streets, passages and yards. Provision of a mortuary. Sewage scheme for Lowton, Kenyon and Culeheth.                                                            |
| Grange-over-Sands  | ... | ... | ... | ... | .....                                                                                                                                                                                                        |
| Great Crosby       | ... | ... | ... | ... | .....                                                                                                                                                                                                        |
| Great Harwood      | ... | ... | ... | ... | .....                                                                                                                                                                                                        |
| Haslingden (B)     | ... | ... | ... | ... | Public abattoir. Public baths.                                                                                                                                                                               |
| Haydock            | ... | ... | ... | ... | Conversion of remaining privies. Paving of back passages and approaches to houses. Sewering of certain areas. Paving of several school playgrounds. Refuse destructor.                                       |
| Heywood (B)        | ... | ... | ... | ... | Completion of conversion scheme and demolition of houses unfit for habitation.                                                                                                                               |
| Hindley            | ... | ... | ... | ... | Public abattoir. Refuse destructor. Paving of yards and back passages (proceeding).                                                                                                                          |
| Horwich            | ... | ... | ... | ... | Abolition of waste-water closets. Public abattoir. Plant for filtration of town's water supply.                                                                                                              |
| Huyton-with-Roby   | ... | ... | ... | ... | Abolition of overcrowding. Carrying out clearance area schemes.                                                                                                                                              |
| Ince-in-Makerfield | ... | ... | ... | ... | Abolition of privy midden system, which general conversion scheme is rendering possible.                                                                                                                     |

CHIEF SANITARY REQUIREMENTS—*continued*.

| URBAN DISTRICTS.          |     |     |     |     | CHIEF SANITARY REQUIREMENTS.                                                                                                                                                                         |
|---------------------------|-----|-----|-----|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Irlam                     | ... | ... | ... | ... | Provision of sanitary conveniences for both sexes in suitable situations on main road. Re-construction of sewer in Lords Street for a length of about 580 yards, urgently necessary.                 |
| Kearsley                  | ... | ... | ... | ... | More houses. Demolition of insanitary houses.                                                                                                                                                        |
| Kirkham                   | ... | ... | ... | ... | Conversion of remainder of privies into water closets and substitution of ashbins for ashpits.                                                                                                       |
| Lancaster (B)             | ... | ... | ... | ... | Slum clearance.                                                                                                                                                                                      |
| Lees                      | ... | ... | ... | ... | .....                                                                                                                                                                                                |
| Leigh (B)                 | ... | ... | ... | ... | More houses. Cleaner atmosphere. Purer milk.                                                                                                                                                         |
| Leyland                   | ... | ... | ... | ... | Private streets works under Sec. 150, Public Health Act, 1875.                                                                                                                                       |
| Litherland                | ... | ... | ... | ... | Sewerage scheme—in conjunction with other Local Authorities (in course of preparation).                                                                                                              |
| Littleborough             | ... | ... | ... | ... | .....                                                                                                                                                                                                |
| Little Lever              | ... | ... | ... | ... | Conversion of remaining privies to fresh water closets. More cottages to replace old property.                                                                                                       |
| Longridge                 | ... | ... | ... | ... | .....                                                                                                                                                                                                |
| Lytham Saint Anne's (B)   | ... | ... | ... | ... | .....                                                                                                                                                                                                |
| Middleton (B)             | ... | ... | ... | ... | Public baths and wash houses. Clearance of unfit houses (in process). Central public sanitary conveniences (action being taken). Disposal of refuse—salvage plant (action being taken).              |
| Milnrow                   | ... | ... | ... | ... | Conversion of pail closets. Paving of streets and yards.                                                                                                                                             |
| Morecambe and Heysham (B) | ... | ... | ... | ... | Erection of 250 houses to let at moderate rentals. Sewerage system for Westgate, with extension to Torrisholme and Bare Lane (whole system of sewerage and sewage disposal at present under review). |
| Mossley (B)               | ... | ... | ... | ... | New sewage works urgently required (plans in preparation).                                                                                                                                           |
| Nelson (B)                | ... | ... | ... | ... | .....                                                                                                                                                                                                |
| Newton-in-Makerfield      | ... | ... | ... | ... | More houses. Completion of all back streets. Conversion of all privies and pails. Discharging block at isolation hospital.                                                                           |
| Ormskirk                  | ... | ... | ... | ... | Houses. Conversion of privies.                                                                                                                                                                       |
| Orrell                    | ... | ... | ... | ... | Destructor.                                                                                                                                                                                          |
| Oswaldtwistle             | ... | ... | ... | ... | Extension of sewer and water supply to certain districts. Clearance schemes and demolition of individual unfit houses.                                                                               |
| Padiham                   | ... | ... | ... | ... | Housing. Erection of public baths.                                                                                                                                                                   |
| Poulton-le-Fylde          | ... | ... | ... | ... | .....                                                                                                                                                                                                |
| Preesall                  | ... | ... | ... | ... | Making-up of unpaved streets. Demolition of unsatisfactory houses. Completion of conversions. Cheeking of suffusion of district in westerly winds by stench from fish works in adjoining district.   |
| Prescot                   | ... | ... | ... | ... | Erection of houses for working classes. Closing of insanitary houses. Paving of back passages.                                                                                                       |



CHIEF SANITARY REQUIREMENTS—*continued.*

| URBAN DISTRICTS.       |     |     |     |     | CHIEF SANITARY REQUIREMENTS.                                                                                                                                                                                                        |
|------------------------|-----|-----|-----|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prestwich              | ... | ... | ... | ... | Sewering of Simister.                                                                                                                                                                                                               |
| Radcliffe              | ... | ... | ... | ... | Abolition of all dry ashpits. Cleansing of all back streets. Bye-laws to control more effectively the fish-frying trade. Replacement of tippler or waste water closets by fresh water closets. Main sewerage in Ainsworth district. |
| Rainford               | ... | ... | ... | ... | .....                                                                                                                                                                                                                               |
| Ramsbottom             | ... | ... | ... | ... | Clearance of old and back-to-back property. Abolition of pail closets.                                                                                                                                                              |
| Rawtenstall (B)        | ... | ... | ... | ... | Demolition of insanitary houses. Closing of back-to-earth basements which are let as separate tenements.                                                                                                                            |
| Rishton                | ... | ... | ... | ... | Abolition of ashpits.                                                                                                                                                                                                               |
| Royton                 | ... | ... | ... | ... | Paving of back passages.                                                                                                                                                                                                            |
| Skelmersdale           | ... | ... | ... | ... | Adoption by Local Authority of unadopted streets.                                                                                                                                                                                   |
| Standish-with-Langtree | ... | ... | ... | ... | Further conversion of privies to fresh water closets and substitution of covered ashbins for open ashpits. Demolition of insanitary areas and back-to-back houses. Erection of approximately 150 working-class houses.              |
| Stretford (B)          | ... | ... | ... | ... | Completion of work anticipated in "Housing programme."                                                                                                                                                                              |
| Swinton and Pendlebury | ... | ... | ... | ... | Immediate demolition of 116 houses (which have already been subjected to an inquiry by the Minister of Health) and 33 caravans which are unfit for human habitation.                                                                |
| Thornton Cleveleys     | ... | ... | ... | ... | Making up of a number of private streets.                                                                                                                                                                                           |
| Tottington             | ... | ... | ... | ... | Further conversion of privies to water closets.                                                                                                                                                                                     |
| Trawden                | ... | ... | ... | ... | Conversion and substitution of ashbins for ashpits.                                                                                                                                                                                 |
| Turton                 | ... | ... | ... | ... | Conversion of privies to fresh water closets.                                                                                                                                                                                       |
| Tyldesley              | ... | ... | ... | ... | Total abolition of ashpits and conversion of privies to water closet system.                                                                                                                                                        |
| Ulverston              | ... | ... | ... | ... | .....                                                                                                                                                                                                                               |
| Upholland              | ... | ... | ... | ... | Conversion of privies.                                                                                                                                                                                                              |
| Urmston                | ... | ... | ... | ... | Additional sewerage in Trafford Park. Public conveniences for Flixton. Paving, draining and making up of several private streets and back passages.                                                                                 |
| Walton-le-Dale         | ... | ... | ... | ... | Further closet conversions. Draining and construction of back passages and side streets. Playing field for children. Carrying out slum clearance schemes, demolition of unfit houses, and renovation of houses suitable for repair. |
| Wardle                 | ... | ... | ... | ... | New houses. Cleansing of streams.                                                                                                                                                                                                   |
| Waterloo-with-Seaforth | ... | ... | ... | ... | .....                                                                                                                                                                                                                               |
| Westhoughton           | ... | ... | ... | ... | Paving of back streets. Further improvements to school playgrounds.                                                                                                                                                                 |
| Whitefield...          | ... | ... | ... | ... | Paving of back streets and passages. Re-draining of houses in Hillock Lane.                                                                                                                                                         |

CHIEF SANITARY REQUIREMENTS—*continued*.

| URBAN DISTRICTS. |     |     |     |     | CHIEF SANITARY REQUIREMENTS.                                                                                                                                                                                                                  |
|------------------|-----|-----|-----|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Whitworth        | ... | ... | ... | ... | More new houses.                                                                                                                                                                                                                              |
| Widnes (B)       | ... | ... | ... | ... | Demolition of insanitary houses.                                                                                                                                                                                                              |
| Withnell         | ... | ... | ... | ... | Increased conversion of pail closets, and provision of movable covered ashbins.                                                                                                                                                               |
| Worsley          | ... | ... | ... | ... | Central slaughterhouse.                                                                                                                                                                                                                       |
| RURAL DISTRICTS. |     |     |     |     |                                                                                                                                                                                                                                               |
| Blackburn        | ... | ... | ... | ... | .....                                                                                                                                                                                                                                         |
| Burnley          | ... | ... | ... | ... | Sewerage schemes for several villages and conversion of privies to fresh water closets. Paving and draining of private streets. Houses at low rents to replace old property.                                                                  |
| Chorley          | ... | ... | ... | ... | Water supply for Mawdesley. Extension of sewer in Whittle-le-Woods and Clayton-le-Woods to drain new buildings.                                                                                                                               |
| Clitheroe        | ... | ... | ... | ... | Sewage scheme for Chipping, Downham, Pendleton and Worston.                                                                                                                                                                                   |
| Fylde            | ... | ... | ... | ... | Water supply to Treales, Roseacre and Wharles.                                                                                                                                                                                                |
| Garstang         | ... | ... | ... | ... | Sewers in a number of townships to prevent pollution of rivers. Water supplies to a number of houses. Improvement to shippons.                                                                                                                |
| Lancaster        | ... | ... | ... | ... | Water main supplies and proper sewerage to townships not already so provided.                                                                                                                                                                 |
| Limehurst...     | ... | ... | ... | ... | Prosecution of slum clearance campaign. Sewer extensions for new properties. Making up of private streets and back passages. More attention to slaughter-houses, dairies, cowsheds and food shops. Continuation of midden closet conversions. |
| Lunesdale        | ... | ... | ... | ... | Water supplies and sewerage systems for certain parishes.                                                                                                                                                                                     |
| Preston          | ... | ... | ... | ... | Sewering of certain areas. Further closet conversions and extension of water supplies.                                                                                                                                                        |
| Ulverston        | ... | ... | ... | ... | .....                                                                                                                                                                                                                                         |
| Warrington       | ... | ... | ... | ... | Paving of streets and passages. Complete sewerage scheme for district, especially in the townships of Sankey, Penketh and Poulton-with Fearnhead.                                                                                             |
| West Lancashire  | ... | ... | ... | ... | Seavenging for Hesketh Bank. Sewerage scheme for new building estates at Netherton and Aintree Village.                                                                                                                                       |
| Whiston          | ... | ... | ... | ... | Further conversion of privies. Working-class dwellings.                                                                                                                                                                                       |
| Wigan            | ... | ... | ... | ... | Sewerage scheme for Wrightington, Dalton, etc. Water supply for Dalton.                                                                                                                                                                       |

HOUSING.

The local health reports indicate that the housing question has been one of the principal subjects engaging the attention of the Councils and Health Officers during the year under report. There has been a concerted effort between the Central Government and the Local Authorities to ensure a speedier clearance of slum property, improvement of conditions at insanitary houses, and the re-housing of tenants displaced under improvement schemes. It may be said that the reports are indicative of a desire on the part of the majority of District Councils to remove bad housing conditions as speedily as practicable. The magnitude of the task however is recognised, and the financial factors involved, particularly in industrial areas, are of considerable import.



The County Public Health Department has kept itself informed of the progress of housing developments in the various localities, and in many instances the County Sanitary Officers have rendered assistance in the preparation of the local programmes under the 1930 Act. A brief synopsis of the local programmes is referred to below.

Housing Legislation, Ministry Circulars, etc.—On the 6th April, 1933, the Ministry of Health issued Circular 1331, urging Local Authorities to concentrate upon the housing question and to prepare and adopt a programme of slum clearance, re-housing of displaced tenants, and to complete the programme within a limited period. Action in the Administrative County under this Circular is reported in the tables on pages 119 to 124. Circular 1334, 22nd May, 1933, related to the Housing Financial Provisions Act, 1933, Circular 1335, 22nd May, 1933, and Circular 1339, 16th May, 1933, to Rural Housing, etc.

Report of the Departmental Committee on Housing.—In December, 1933, the “Moyne Committee” presented its report. This Committee was appointed by the Minister of Health “to consider and report :—

(a) What, if any, further steps are necessary or desirable to secure the maintenance of a proper standard of fitness for human habitation in working-class houses which are neither situate in an area suitable for clearance under Part I of the Housing Act, 1930, nor suitable for demolition under Section 19 of that Act ; and

(b) What, if any, further steps are necessary or desirable to promote the supply of houses for the working classes, without public charge, through the agency of public utility societies or other bodies subject to similar limitations operating in particular areas or otherwise.”

The report, after an introduction, deals with maintenance of a proper standard of fitness in existing privately owned working-class houses, miscellaneous suggestions for amendments to the law, types of new houses required, rural housing, provision of new houses (without public charge) by Public Utility or other such Societies, and includes a summary of conclusions.

Amongst the recommendations are the following :—

That Local Authorities should be given compulsory powers and encouraged to acquire, for re-conditioning, working-class houses which are not in all respects fit for human habitation, but can be made fit and to which a probable life of at least twenty years can be given ; that approved Public Utility Societies be given powers as will enable them to exercise effectively the powers which the Committee propose for them ; the appointment by the Minister of Health of a strong Central Public Utility Council ; the basis of compensation payable, conditions of subsidies, suggestions for amending the Housing (Rural Workers) Acts, etc.

**Housing Act, 1930.—SLUM CLEARANCE. PROGRAMMES OF LOCAL AUTHORITIES.**—Details have been obtained from each Local Authority in the Administrative County on the housing conditions of their areas and in regard to their housing programmes prepared in accord with the Ministry of Health Circular, 1331, dated 6th April 1933.

The component parts of the programme were :—

(1) a list of the areas in which clearance is necessary, with information of the number of houses to be demolished in each, and of the number of their inhabitants ;

(2) a list of the areas in which improvement by way of reconditioning or otherwise is necessary, with information as in (1) above ;

(3) a time-table for the initiation, progress and completion of action to secure clearance or improvement, as the case may be, of all these areas ; and

(4) a time-table of re-housing co-ordinated with the displacements contemplated by the time-table of clearance operations.

The intention was that programmes would be prepared which would secure the demolition of all slum houses and that as far as possible they should be on the basis of clearing away such houses not later than the year 1938, and that an immediate beginning should be made with the work.

The programmes provide the first comprehensive estimate of the slums to be cleared under the Act of 1930.

Forms Hsg. 129 and 130 were issued by the Ministry and copies of these Forms in regard to each district in the Administrative County were obtained by the County Public Health Department.

From these Forms the following information is collated :—

1.—CLEARANCE AREAS.

| URBAN DISTRICT.                  | Number of |                          | Number of new houses to be provided. | Year during which clearance is to be effected and new houses provided. |
|----------------------------------|-----------|--------------------------|--------------------------------------|------------------------------------------------------------------------|
|                                  | Houses.   | Persons to be displaced. |                                      |                                                                        |
| Abram ... ..                     | ...       | ...                      | ...                                  | ...                                                                    |
| Acerington (B) ... ..            | 80        | 290                      | 58                                   | ...                                                                    |
| Adlington ... ..                 | 13        | 52                       | 10                                   | 1933-34                                                                |
| Ashton-in-Makerfield... ..       | 95        | 458                      | 40                                   | 1934-37                                                                |
| Ashton-under-Lyne (B) ... ..     | 214       | 969                      | 214                                  | 1934-38                                                                |
| Aspull ... ..                    | ...       | ...                      | ...                                  | ...                                                                    |
| Atherton ... ..                  | 80        | 307                      | 80                                   | 1934-36                                                                |
| Audenshaw ... ..                 | ...       | ...                      | ...                                  | ...                                                                    |
| Bacup (B) ... ..                 | 162       | 637                      | 138                                  | 1934-35                                                                |
| Barrowford ... ..                | 12        | 25                       | 6                                    | 1934                                                                   |
| Billinge and Winstanley ... ..   | ...       | ...                      | ...                                  | ...                                                                    |
| Blackrod ... ..                  | ...       | ...                      | ...                                  | ...                                                                    |
| Brierfield ... ..                | ...       | ...                      | ...                                  | ...                                                                    |
| Carnforth ... ..                 | ...       | ...                      | ...                                  | ...                                                                    |
| Chadderton ... ..                | 172       | 712                      | 174                                  | 1934-38                                                                |
| Chorley (B) ... ..               | 80        | 322                      | 90                                   | 1934-38                                                                |
| Church... ..                     | 7         | 36                       | 9                                    | ...                                                                    |
| Clayton-le-Moors ... ..          | ...       | ...                      | ...                                  | ...                                                                    |
| Clitheroe (B) ... ..             | ...       | ...                      | ...                                  | ...                                                                    |
| Colne (B) ... ..                 | 695       | 2,135                    | 480*                                 | Period of 10 years.                                                    |
| Crompton ... ..                  | 156       | 623                      | 130                                  | 1934-38                                                                |
| Croston ... ..                   | ...       | ...                      | ...                                  | ...                                                                    |
| Dalton-in-Furness ... ..         | 34        | 162                      | 34                                   | 1934-36                                                                |
| Darwen (B) ... ..                | ...       | ...                      | ...                                  | ...                                                                    |
| Denton... ..                     | 307       | 1,043                    | 205                                  | 1934-38                                                                |
| Droylsden ... ..                 | ...       | ...                      | ...                                  | ...                                                                    |
| Eccles (B) ... ..                | 65        | 245                      | 67                                   | 1934                                                                   |
| Failsworth ... ..                | 88        | 377                      | 88                                   | 1934-37                                                                |
| Farnworth ... ..                 | 116       | 433                      | 88                                   | 1934-35                                                                |
| Fleetwood (B) ... ..             | ...       | ...                      | ...                                  | ...                                                                    |
| Formby ... ..                    | ...       | ...                      | ...                                  | ...                                                                    |
| Fulwood ... ..                   | ...       | ...                      | ...                                  | ...                                                                    |
| Golborne ... ..                  | ...       | ...                      | ...                                  | ...                                                                    |
| Grange-over-Sands ... ..         | ...       | ...                      | ...                                  | ...                                                                    |
| Great Crosby ... ..              | ...       | ...                      | ...                                  | ...                                                                    |
| Great Harwood ... ..             | ...       | ...                      | ...                                  | ...                                                                    |
| Haslingden (B) ... ..            | 172       | 543                      | 109*                                 | 1934-38                                                                |
| Haydock ... ..                   | ...       | ...                      | ...                                  | ...                                                                    |
| Heywood (B) ... ..               | 67        | 240                      | 71                                   | 1934-38                                                                |
| Hindley ... ..                   | 69        | 301                      | 58                                   | 1935-36                                                                |
| Horwich ... ..                   | 9         | 25                       | 10                                   | 1934                                                                   |
| Huyton-with-Roby ... ..          | 132       | 530                      | 106*                                 | 1933-35                                                                |
| Ince-in-Makerfield ... ..        | ...       | ...                      | ...                                  | ...                                                                    |
| Irlam ... ..                     | ...       | ...                      | ...                                  | ...                                                                    |
| Kearsley ... ..                  | 402       | 1,508                    | 300                                  | 1933-38                                                                |
| Kirkham ... ..                   | ...       | ...                      | Not decided                          | ...                                                                    |
| Lancaster (B) ... ..             | 228       | 857                      | 172*                                 | 1934-35                                                                |
| Lees ... ..                      | 6         | 20                       | 6                                    | 1934                                                                   |
| Leigh (B) ... ..                 | 445       | 1,985                    | 445                                  | 1934-38                                                                |
| Leyland ... ..                   | 29        | 91                       | 22                                   | 1933-34                                                                |
| Litherland ... ..                | 55        | 257                      | 61                                   | 1935                                                                   |
| Littleborough ... ..             | 40        | 150                      | 30*                                  | 1933-38                                                                |
| Little Lever ... ..              | ...       | ...                      | ...                                  | ...                                                                    |
| Longridge ... ..                 | ...       | ...                      | ...                                  | ...                                                                    |
| Lytham St Anne's (B) ... ..      | ...       | ...                      | ...                                  | ...                                                                    |
| Middleton (B)... ..              | 49        | 200                      | 40                                   | 1934-35                                                                |
| Milnrow ... ..                   | 63        | 201                      | 63                                   | 1934-38                                                                |
| Morecambe and Heysham (B) ... .. | ...       | ...                      | ...                                  | ...                                                                    |
| Mossley (B) ... ..               | ...       | ...                      | ...                                  | ...                                                                    |
| Nelson (B) ... ..                | ...       | ...                      | ...                                  | ...                                                                    |
| Newton-in-Makerfield ... ..      | ...       | ...                      | ...                                  | ...                                                                    |
| Ormskirk ... ..                  | 65        | 332                      | 62                                   | 1934-38                                                                |
| Orrell ... ..                    | 24        | 75                       | 24                                   | 1934-35                                                                |

\* Estimated.



CLEARANCE AREAS—*continued.*

| URBAN DISTRICT.               | Number of |                          | Number of new houses to be provided. | Year during which clearance is to be effected and new houses provided. |
|-------------------------------|-----------|--------------------------|--------------------------------------|------------------------------------------------------------------------|
|                               | Houses.   | Persons to be displaced. |                                      |                                                                        |
| Oswaldtwistle ... ..          | 24        | 85                       | 24                                   | 1935-36                                                                |
| Padiham ... ..                | 152       | 489                      | 103                                  | 1934-35                                                                |
| Poulton-le-Fylde ... ..       | ...       | ...                      | ...                                  | ...                                                                    |
| Precsall ... ..               | 14        | 35                       | 8                                    | 1934                                                                   |
| Prescot ... ..                | 236       | 1,126                    | 254                                  | ...                                                                    |
| Prestwich ... ..              | 21        | 91                       | 21                                   | ...                                                                    |
| Radeliffe ... ..              | 6         | 30                       | 6                                    | 1934.                                                                  |
| Rainford ... ..               | ...       | ...                      | ...                                  | ...                                                                    |
| Ramsbottom ... ..             | 219       | 708                      | 168                                  | 1934-38                                                                |
| Rawtenstall (B) ... ..        | 245       | 816                      | 164*                                 | 1934-37                                                                |
| Rishton ... ..                | ...       | ...                      | ...                                  | ...                                                                    |
| Royton ... ..                 | 201       | 724                      | 181                                  | 1934-38                                                                |
| Skelmersdale ... ..           | ...       | ...                      | ...                                  | ...                                                                    |
| Standish-with-Langtree ... .. | 147       | 625                      | 125*                                 | 1934-37                                                                |
| Stretford (B) ... ..          | 16        | 58                       | 12                                   | 1934                                                                   |
| Swinton and Pendlebury ... .. | 117       | 521                      | 104                                  | 1933-38                                                                |
| Thornton Cleveleys ... ..     | ...       | ...                      | ...                                  | ...                                                                    |
| Tottington ... ..             | ...       | ...                      | ...                                  | ...                                                                    |
| Trawden ... ..                | ...       | ...                      | ...                                  | ...                                                                    |
| Turton ... ..                 | ...       | ...                      | ...                                  | ...                                                                    |
| Tyldesley ... ..              | 70        | 376                      | 76                                   | ...                                                                    |
| Ulverston ... ..              | 38        | 150                      | 38                                   | 1934-35                                                                |
| Upholland ... ..              | ...       | ...                      | ...                                  | ...                                                                    |
| Urmston ... ..                | ...       | ...                      | ...                                  | ...                                                                    |
| Walton-le-Dale ... ..         | 49        | 170                      | 49                                   | 1934-37                                                                |
| Wardle... ..                  | ...       | ...                      | ...                                  | ...                                                                    |
| Waterloo-with-Scaforth ... .. | 53        | 205                      | 41*                                  | ...                                                                    |
| Westhoughton ... ..           | 193       | 797                      | 160                                  | 1934-36                                                                |
| Whitefield ... ..             | 140       | 518                      | 140                                  | 1934-38                                                                |
| Whitworth ... ..              | ...       | ...                      | ...                                  | ...                                                                    |
| Widnes (B) ... ..             | 101       | 549                      | 107                                  | 1934                                                                   |
| Withnell ... ..               | ...       | ...                      | ...                                  | ...                                                                    |
| Worsley ... ..                | 314       | 1,190                    | 314                                  | 1934-38                                                                |
| Total Urban Districts ... ..  | 6,587     | 25,404                   | 5,585                                |                                                                        |

\* Estimated.

CLEARANCE AREAS—*continued.*

| RURAL DISTRICT.           | Number of |                          | Number of new houses to be provided. | Year during which clearance is to be effected and new houses provided. |
|---------------------------|-----------|--------------------------|--------------------------------------|------------------------------------------------------------------------|
|                           | Houses.   | Persons to be displaced. |                                      |                                                                        |
| Blackburn ... ..          | ...       | ...                      | ...                                  | ...                                                                    |
| Burnley ... ..            | ...       | ...                      | ...                                  | ...                                                                    |
| Chorley ... ..            | ...       | ...                      | ...                                  | ...                                                                    |
| Clitheroe ... ..          | ...       | ...                      | ...                                  | ...                                                                    |
| Fylde ... ..              | ...       | ...                      | ...                                  | ...                                                                    |
| Garstang ... ..           | ...       | ...                      | ...                                  | ...                                                                    |
| Lancaster ... ..          | ...       | ...                      | ...                                  | ...                                                                    |
| Limehurst ... ..          | 38        | 165                      | 38                                   | 1938                                                                   |
| Lunesdale ... ..          | ...       | ...                      | ...                                  | ...                                                                    |
| Preston ... ..            | ...       | ...                      | ...                                  | ...                                                                    |
| Ulverston ... ..          | 57        | 208                      | 54                                   | 1934-36                                                                |
| Warrington ... ..         | ...       | ...                      | ...                                  | ...                                                                    |
| West Lancashire ... ..    | ...       | ...                      | ...                                  | ...                                                                    |
| Whiston ... ..            | 36        | 124                      | 36                                   | 1935                                                                   |
| Wigan ... ..              | 25        | 104                      | 26                                   | 1934                                                                   |
| Total—                    |           |                          |                                      |                                                                        |
| Rural Districts ... ..    | 156       | 601                      | 154                                  |                                                                        |
| Urban Districts ... ..    | 6,587     | 25,404                   | 5,585                                |                                                                        |
| Administrative County ... | 6,743     | 26,005                   | 5,739                                |                                                                        |

## II. IMPROVEMENT AREAS.

The following statement sets out the information given by the Local Authorities.

| DISTRICT.                  | No. of houses to be demolished |                   | No. of persons to be displaced |                   |                         | No. of new houses to be provided. | Year during which displacement will be effected and new houses provided. |
|----------------------------|--------------------------------|-------------------|--------------------------------|-------------------|-------------------------|-----------------------------------|--------------------------------------------------------------------------|
|                            | By reason of unfitness.        | To open out area. | From houses demolished         |                   | To abate over-crowding. |                                   |                                                                          |
|                            |                                |                   | By reason of unfitness.        | To open out area. |                         |                                   |                                                                          |
| Colne (B) ... ..           | 35                             | ...               | 122                            | ...               | ...                     | Not decided                       | ...                                                                      |
| Dalton-in-Furness ...      | ...                            | 1                 | ...                            | 5                 | 41                      | 9                                 | 1934-36                                                                  |
| Heywood (B) ... ..         | 8                              | ...               | 27                             | ...               | 26                      | 13                                | 1935                                                                     |
| Hindley ... ..             | 80                             | ...               | 418                            | ...               | ...                     | 80                                | 1938                                                                     |
| Lancaster (B) ... ..       | 143                            | ...               | 499                            | ...               | ...                     | Not decided                       | 1936-37                                                                  |
| Lees ... ..                | 22                             | ...               | 78                             | ...               | 31                      | 29                                | 1934-38                                                                  |
| Orrell ... ..              | 32                             | ...               | 115                            | ...               | 41                      | 38                                | 1934-35                                                                  |
| Prestwich ... ..           | 25                             | ...               | 74                             | ...               | ...                     | 24                                | ...                                                                      |
| Radcliffe ... ..           | ...                            | 3                 | ...                            | 11                | ...                     | 3                                 | 1934                                                                     |
| Royton ... ..              | 85                             | ...               | 295                            | ...               | ...                     | 74                                | 1934-38                                                                  |
| Standish-with-Langtree ... | 3                              | ...               | 11                             | ...               | ...                     | 3                                 | 1934                                                                     |
| Stretford (B) ... ..       | ...                            | 12                | ...                            | 38                | 19                      | 13                                | 1934-38                                                                  |
| Urmston ... ..             | 141                            | ...               | 474                            | ...               | ...                     | 105                               | 1934-38                                                                  |
| Limehurst (R) ... ..       | ...                            | 8                 | ...                            | 30                | ...                     | 6                                 | 1938                                                                     |
| Lunesdale (R) ... ..       | 14                             | ...               | 54                             | ...               | ...                     | 14                                | 1934-38                                                                  |
| Total ... ..               | 588                            | 24                | 2,167                          | 84                | 158                     | *411                              |                                                                          |

\*Excludes two districts where number of new houses to be provided has not been decided.



## III.—INDIVIDUAL HOUSES.

This Table shows the number of individual houses to be demolished during each of the next five years, the total number of persons to be displaced from such houses, and the number of new houses proposed in connection with these displacements.

| URBAN DISTRICT.             | No. of individual houses<br>proposed to be demolished<br>under Section 19. |      |      |      |      |        | No. of<br>Persons<br>to be<br>dis-<br>placed<br>from<br>such<br>Houses. | No. of new houses<br>proposed in connection<br>with these displacements. |      |      |      |      |        |
|-----------------------------|----------------------------------------------------------------------------|------|------|------|------|--------|-------------------------------------------------------------------------|--------------------------------------------------------------------------|------|------|------|------|--------|
|                             | 1934                                                                       | 1935 | 1936 | 1937 | 1938 | Total. |                                                                         | 1934                                                                     | 1935 | 1936 | 1937 | 1938 | Total. |
| Abram ... ..                | 12                                                                         | 5    | ...  | ...  | ...  | 17     | 79                                                                      | ...                                                                      | 12   | 5    | ...  | ...  | 17     |
| Aecrington (B) ...          | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Adlington ... ..            | 2                                                                          | ...  | ...  | ...  | ...  | 2      | 7                                                                       | 2                                                                        | ...  | ...  | ...  | ...  | 2      |
| Ashton-in-Makerfield        | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Ashton-under-Lyne<br>(B).   | 10                                                                         | 10   | 10   | 10   | 10   | 50     | 225                                                                     | 10                                                                       | 10   | 10   | 10   | 10   | 50     |
| Aspull ... ..               | 15                                                                         | 15   | ...  | ...  | ...  | 30     | 107                                                                     | 15                                                                       | 15   | ...  | ...  | ...  | 30     |
| Atherton ... ..             | 40                                                                         | 5    | 4    | ...  | ...  | 49     | 168                                                                     | 38                                                                       | 4    | 2    | ...  | ...  | 44     |
| Audenshaw...                | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Bacup (B) ... ..            | ...                                                                        | 46   | 94   | 100  | 88   | 328    | 859                                                                     | ...                                                                      | 38   | 44   | 63   | 52   | 197    |
| Barrowford ...              | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Billinge and<br>Winstanley. | 23                                                                         | 20   | 20   | 20   | 22   | 105    | 455                                                                     | 23                                                                       | 20   | 20   | 20   | 22   | 105    |
| Blackrod ... ..             | 7                                                                          | ...  | ...  | ...  | ...  | 7      | 29                                                                      | None proposed.                                                           |      |      |      |      |        |
| Brierfield ... ..           | 20                                                                         | 12   | 12   | 11   | 13   | 68     | 184                                                                     | 20                                                                       | 12   | 12   | 11   | 13   | 68     |
| Carnforth ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Chadderton...               | ...                                                                        | 1    | 4    | 8    | 74   | 87     | 187                                                                     | ...                                                                      | 1    | 4    | 8    | 41   | 54     |
| Chorley (B)...              | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Church ... ..               | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Clayton-le-Moors ...        | ...                                                                        | 14   | 10   | ...  | ...  | 24     | 90                                                                      | ...                                                                      | 12   | 6    | ...  | ...  | 18     |
| Clitheroe (B) ...           | 3                                                                          | 4    | 4    | 2    | 2    | 15     | 48                                                                      | 3                                                                        | 4    | 4    | 2    | 2    | 15     |
| Colne (B) ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Crompton ... ..             | 4                                                                          | 4    | 4    | 10   | ...  | 22     | 79                                                                      | 4                                                                        | 2    | 3    | 8    | ...  | 17     |
| Croston ... ..              | 6                                                                          | ...  | ...  | ...  | ...  | 6      | 22                                                                      | ...                                                                      | 6    | ...  | ...  | ...  | 6      |
| Dalton-in-Furness           | 7                                                                          | 3    | 3    | ...  | ...  | 13     | 67                                                                      | 8                                                                        | 4    | 3    | ...  | ...  | 15     |
| Darwen (B) ... ..           | 33                                                                         | 30   | ...  | ...  | ...  | 63     | 183                                                                     | 33                                                                       | 30   | ...  | ...  | ...  | 63     |
| Denton ... ..               | 4                                                                          | 4    | ...  | ...  | ...  | 8      | 29                                                                      | 3                                                                        | 3    | ...  | ...  | ...  | 6      |
| Droylsden ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Eccles (B) ... ..           | 33                                                                         | ...  | ...  | ...  | ...  | 33     | 111                                                                     | 33                                                                       | ...  | ...  | ...  | ...  | 33     |
| Failsworth ... ..           | 3                                                                          | ...  | ...  | ...  | ...  | 3      | 15                                                                      | 3                                                                        | ...  | ...  | ...  | ...  | 3      |
| Farnworth ... ..            | 86                                                                         | ...  | ...  | ...  | ...  | 86     | 322                                                                     | 66                                                                       | ...  | ...  | ...  | ...  | 66     |
| Fleetwood (B) ...           | 11                                                                         | ...  | ...  | ...  | ...  | 11     | 36                                                                      | 9                                                                        | ...  | ...  | ...  | ...  | 9      |
| Formby ... ..               | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Fulwood ... ..              | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Golborne ... ..             | ...                                                                        | 4    | ...  | ...  | ...  | 4      | 8                                                                       | ...                                                                      | 4    | ...  | ...  | ...  | 4      |
| Grange-over-Sands           | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Great Crosby ...            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Great Harwood ...           | 27                                                                         | ...  | ...  | ...  | ...  | 27     | 107                                                                     | Buying houses as required.                                               |      |      |      |      |        |
| Haslingden (B) ...          | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Haydock ... ..              | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...    |
| Heywood (B) ... ..          | ...                                                                        | 16   | ...  | ...  | ...  | 16     | 54                                                                      | ...                                                                      | 16   | ...  | ...  | ...  | 16     |
| Hindley ... ..              | 26                                                                         | ...  | ...  | ...  | ...  | 26     | 121                                                                     | 24                                                                       | ...  | ...  | ...  | ...  | 24     |

INDIVIDUAL HOUSES—continued.

| URBAN DISTRICT.               | No. of individual houses<br>proposed to be demolished<br>under Section 19. |      |      |      |      |                 | No. of<br>Persons<br>to be<br>dis-<br>placed<br>from<br>such<br>Houses. | No. of new houses<br>proposed in connection<br>with these displacements. |      |      |      |      |                 |
|-------------------------------|----------------------------------------------------------------------------|------|------|------|------|-----------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------|------|------|------|------|-----------------|
|                               | 1934                                                                       | 1935 | 1936 | 1937 | 1938 | Total.          |                                                                         | 1934                                                                     | 1935 | 1936 | 1937 | 1938 | Total.          |
| Horwich ... ..                | 1                                                                          | ...  | ...  | ...  | ...  | 1               | 5                                                                       | 1                                                                        | ...  | ...  | ...  | ...  | 1               |
| Huyton-with-Roby              | 15                                                                         | ...  | ...  | ...  | ...  | 15              | 56                                                                      |                                                                          |      |      |      |      | Not<br>stated.  |
| Ince-in-Makerfield            | ...                                                                        | 110  | ...  | ...  | ...  | 110             | 481                                                                     | ...                                                                      | 96   | ...  | ...  | ...  | 9               |
| Irlam ... ..                  | 12                                                                         | ...  | ...  | ...  | ...  | 12              | 50                                                                      |                                                                          |      |      |      |      | Not<br>stated.  |
| Kearsley ... ..               | 24                                                                         | 26   | 27   | 30   | 5    | 112*            | 420                                                                     | 18                                                                       | 19   | 21   | 23   | 3    | 84*             |
| Kirkham ... ..                |                                                                            |      |      |      |      | Not<br>decided. |                                                                         |                                                                          |      |      |      |      |                 |
| Lancaster (B)                 | ...                                                                        | ...  | ...  | ...  | 30   | 30              | 99                                                                      |                                                                          |      |      |      |      | Not<br>stated.  |
| Lees ... ..                   | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Leigh (B) ... ..              | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Leyland ... ..                | 6                                                                          | ...  | ...  | ...  | ...  | 6               | 23                                                                      | 6                                                                        | ...  | ...  | ...  | ...  | 6               |
| Litherland ... ..             | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Littleborough ...             | 22                                                                         | ...  | ...  | ...  | ...  | 22              | 27                                                                      |                                                                          |      | ...  |      |      | Not<br>stated.  |
| Little Lever ...              | 16                                                                         | 19   | 22   | ...  | ...  | 57              | 204                                                                     | 14                                                                       | 16   | 20   | ...  | ...  | 50              |
| Longridge ... ..              | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Lytham St. Anne's<br>(B)      | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Middleton (B) ...             | 6                                                                          | ...  | ...  | ...  | ...  | 6               | 28                                                                      | 6                                                                        | ...  | ...  | ...  | ...  | 6               |
| Milnrow ... ..                | ...                                                                        | 14   | 12   | ...  | ...  | 26              | 81                                                                      | ...                                                                      | 14   | 12   | ...  | ...  | 26              |
| Morecambe and<br>Heysham (B). | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Mossley (B) ...               | 10                                                                         | 10   | 10   | 10   | ...  | 40              | 160                                                                     |                                                                          |      |      |      |      | As<br>required. |
| Nelson (B) ... ..             | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Newton-in-<br>Makerfield.     | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Ormskirk ... ..               | 10                                                                         | 6    | 2    | 4    | 3    | 25              | 94                                                                      | 8                                                                        | 3    | 2    | 4    | 3    | 20              |
| Orrell ... ..                 | ...                                                                        | 38   | ...  | ...  | ...  | 38              | 133                                                                     | ...                                                                      | 39   | ...  | ...  | ...  | 39              |
| Oswaldtwistle ...             | ...                                                                        | ...  | ...  | 37   | ...  | 37              | 108                                                                     | ...                                                                      | ...  | ...  | 37   | ...  | 37              |
| Padiham ... ..                | 14                                                                         | ...  | ...  | ...  | ...  | 14              | 34                                                                      | 7                                                                        | ...  | ...  | ...  | ...  | 7               |
| Poulton-le-Fylde ...          | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Precsall ... ..               | 5                                                                          | ...  | ...  | ...  | ...  | 5               | 21                                                                      | 4                                                                        | ...  | ...  | ...  | ...  | 4               |
| Prescot ... ..                | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Prestwich ... ..              | 4                                                                          | ...  | ...  | ...  | ...  | 4               | 6                                                                       |                                                                          |      |      |      |      | Not<br>stated.  |
| Radcliffe ... ..              | 10                                                                         | 8    | 10   | ...  | ...  | 28              | 55                                                                      | 6                                                                        | 4    | 9    | ...  | ...  | 19              |
| Rainford ... ..               | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Ramsbottom ...                | ...                                                                        | ...  | 10   | ...  | ...  | 10              | 32                                                                      | ...                                                                      | ...  | 8    | ...  | ...  | 8               |
| Rawtenstall (B) ...           | 37                                                                         | 50   | 30   | 25   | 18   | 160             | 321                                                                     |                                                                          |      |      |      |      | Not<br>stated.  |
| Rishton ... ..                | 6                                                                          | ...  | ...  | ...  | ...  | 6               | 18                                                                      |                                                                          |      |      |      |      | Not<br>stated   |
| Royton ... ..                 |                                                                            |      |      | 16   |      | 16              | 75                                                                      |                                                                          |      |      | 19   |      | 19              |
| Skelmersdale ...              | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Standish-with-<br>Langtree.   | 25                                                                         | ...  | ...  | ...  | ...  | 25              | 109                                                                     |                                                                          |      |      |      |      | Not<br>stated.  |
| Stretford (B) ...             | 3                                                                          | 2    | 6    | 2    | 14   | 27              | 89                                                                      | 2                                                                        | 2    | 4    | 2    | 9    | 19              |
| Swinton and<br>Pendlebury.    | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Thornton Cleveleys            | ...                                                                        | ...  | ...  | ...  | ...  | ...             | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...             |
| Tottington ... ..             | Only a small number required to be dealt with.                             |      |      |      |      |                 |                                                                         |                                                                          |      |      |      |      | Not<br>stated.  |

\* Estimated.



INDIVIDUAL HOUSES—*continued.*

| URBAN DISTRICT.             | No. of individual houses<br>proposed to be demolished<br>under Section 19. |      |      |      |      |        | No. of<br>Persons<br>to be<br>dis-<br>placed<br>from<br>such<br>Houses. | No. of new houses<br>proposed in connection<br>with these displacements. |      |      |      |      |                |
|-----------------------------|----------------------------------------------------------------------------|------|------|------|------|--------|-------------------------------------------------------------------------|--------------------------------------------------------------------------|------|------|------|------|----------------|
|                             | 1934                                                                       | 1935 | 1936 | 1937 | 1938 | Total. |                                                                         | 1934                                                                     | 1935 | 1936 | 1937 | 1938 | Total.         |
| Trawden ... ..              | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Turton ... ..               | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Tyldesley ... ..            | 2                                                                          | ...  | ...  | ...  | ...  | 2      | 5                                                                       | 2                                                                        | ...  | ...  | ...  | ...  | 2              |
| Ulverston ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Upholland ... ..            | ...                                                                        | ...  | 63   | ...  | ...  | 63     | 290                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | Not<br>stated. |
| Urmston ... ..              | 18                                                                         | 18   | 16   | 16   | 16   | 84     | 271                                                                     | 14                                                                       | 12   | 12   | 11   | 11   | 60             |
| Walton-le-Dale ...          | 1                                                                          | ...  | ...  | ...  | ...  | 1      | 1                                                                       | 1                                                                        | ...  | ...  | ...  | ...  | 1              |
| Wardle ... ..               | 14                                                                         | 12   | 5    | 1    | 1    | 33     | 99                                                                      | 14                                                                       | 12   | 5    | 1    | 1    | 33             |
| Waterloo-with-<br>Seaforth. | ...                                                                        | 5    | ...  | ...  | ...  | 5      | 12                                                                      | 5                                                                        | ...  | ...  | ...  | ...  | 5              |
| Westhoughton ...            | 6                                                                          | 6    | 5    | ...  | ...  | 17     | 68                                                                      | 5                                                                        | 5    | 4    | ...  | ...  | 14             |
| Whitefield ... ..           | 21                                                                         | 10   | 8    | 8    | 8    | 55     | 175                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | Not<br>stated. |
| Whitworth ... ..            | 18                                                                         | 13   | 22   | 10   | 10   | 73     | 194                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | Not<br>stated. |
| Widnes (B) ... ..           | ...                                                                        | ...  | 117  | ...  | ...  | 117    | 598                                                                     | ...                                                                      | ...  | 134  | ...  | ...  | 134            |
| Withnell ... ..             | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Worsley ... ..              | 14                                                                         | 2    | 5    | 4    | 4    | 29     | 104                                                                     | 14                                                                       | 2    | 5    | 4    | 4    | 29             |
| Total Urban Districts       | 692                                                                        | 542  | 355  | 308  | 318  | 2,411† | 8,138                                                                   | 421                                                                      | 417  | 215  | 204  | 171  | 1,581§         |
| RURAL DISTRICT.             |                                                                            |      |      |      |      |        |                                                                         |                                                                          |      |      |      |      |                |
| Blackburn ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Burnley ... ..              | 6                                                                          | ...  | ...  | ...  | ...  | 6      | 16                                                                      | 4                                                                        | ...  | ...  | ...  | ...  | 4              |
| Chorley ... ..              | 7                                                                          | ...  | ...  | ...  | ...  | 7      | 31                                                                      | 7                                                                        | ...  | ...  | ...  | ...  | 7              |
| Clitheroe ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Fylde ... ..                | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Garstang ... ..             | 30                                                                         | 20   | 14   | 12   | 11   | 87     | 309                                                                     | 30                                                                       | 20   | 14   | 12   | 11   | 87             |
| Lancaster ... ..            | ...                                                                        | ...  | ...  | ...  | ...  | ...    | ...                                                                     | ...                                                                      | ...  | ...  | ...  | ...  | ...            |
| Limehurst ... ..            | ...                                                                        | ...  | ...  | ...  | 7    | 7      | 36                                                                      | ...                                                                      | ...  | ...  | ...  | 7    | 7              |
| Luncesdale ... ..           | 5                                                                          | 5    | 2    | ...  | ...  | 12     | 44                                                                      | 5                                                                        | 5    | 2    | ...  | ...  | 12             |
| Preston ... ..              | 14                                                                         | 6    | 6    | 5    | 2    | 33     | 105                                                                     | 14                                                                       | 6    | 6    | 5    | 2    | 33             |
| Ulverston ... ..            | 3                                                                          | ...  | ...  | ...  | ...  | 3      | 15                                                                      | 2                                                                        | ...  | ...  | ...  | ...  | 2              |
| Warrington... ..            | 6                                                                          | 16   | 9    | ...  | 3    | 34     | 124                                                                     | 5                                                                        | 16   | 9    | ...  | 2    | 32             |
| West Lancashire ...         | 6                                                                          | 11   | ...  | ...  | ...  | 17     | 65                                                                      | ...                                                                      | 11   | ...  | ...  | ...  | 11             |
| Whiston ... ..              | ...                                                                        | 41   | ...  | ...  | ...  | 41     | 165                                                                     | ...                                                                      | 42   | ...  | ...  | ...  | 42             |
| Wigan ... ..                | 8                                                                          | ...  | ...  | ...  | ...  | 8      | 33                                                                      | 8                                                                        | ...  | ...  | ...  | ...  | 8              |
| Total—                      |                                                                            |      |      |      |      |        |                                                                         |                                                                          |      |      |      |      |                |
| Rural Districts ...         | 85                                                                         | 99   | 31   | 17   | 23   | 255    | 943                                                                     | 75                                                                       | 100  | 31   | 17   | 22   | 245            |
| Urban Districts ...         | 692                                                                        | 542  | 355  | 308  | 318  | 2,411† | 8,138                                                                   | 421                                                                      | 417  | 215  | 204  | 171  | 1,581§         |
| Administrative<br>County.   | 777                                                                        | 641  | 386  | 325  | 341  | 2,666† | 9,081                                                                   | 496                                                                      | 517  | 246  | 221  | 193  | 1,826†§        |

† Excludes 13 districts where re-housing proposals not decided upon.

‡ Includes 196 houses, year of demolition not stated.

§ „ 153 „ „ erection „ „

## RE-HOUSING.

In regard to the "re-housing proposals," 57 Local Authorities report that at the date on which the Ministry's Forms had to be returned, viz., 30th September, 1933, they had not had time to complete this part of their scheme, and 23 other Local Authorities report "no action."

Information under this head is therefore incomplete, but the statement below gives such details as are available :—

| DISTRICT.                      | Proposed<br>No. of<br>houses<br>(various<br>types). | Estimated<br>all-in<br>cost per<br>house. |
|--------------------------------|-----------------------------------------------------|-------------------------------------------|
|                                |                                                     | £                                         |
| Adlington ... ..               | 12                                                  | 410                                       |
| Ashton-in-Makerfield ... ..    | 40                                                  | 401-426                                   |
| Aspull ... ..                  | 30                                                  | 345-358                                   |
| Atherton ... ..                | 124                                                 | 365                                       |
| Bacup (B) ... ..               | 335                                                 | 400-475                                   |
| Billinge and Winstanley ... .. | 105                                                 | 290-310                                   |
| Brierfield ... ..              | 68                                                  | 269-421                                   |
| Clayton-le-Moors ... ..        | 18                                                  | 320-341                                   |
| Dalton-in-Furness ... ..       | 58                                                  | 322-352                                   |
| Eccles (B) ... ..              | 100                                                 | 354-418                                   |
| Fleetwood (B) ... ..           | 9                                                   | 295                                       |
| Huyton-with-Roby ... ..        | 74                                                  | 299-325                                   |
| Leyland ... ..                 | 27                                                  | 295-300                                   |
| Middleton (B) ... ..           | 46                                                  | 357                                       |
| Milnrow ... ..                 | 90                                                  | 340-370                                   |
| Mossley (B) ... ..             | 10                                                  | 445                                       |
| Orrell ... ..                  | 92                                                  | 360-375                                   |
| Preesall ... ..                | 12                                                  | 318-454                                   |
| Radcliffe ... ..               | 20                                                  | 338                                       |
| Ulverston ... ..               | 38                                                  | 364-424                                   |
| Burnley (R) ... ..             | 6                                                   | 358-362                                   |
| Lunesdale (R) ... ..           | 26                                                  | 375-450                                   |
| Warrington (R) ... ..          | 32                                                  | 342-359                                   |

It will be noted from the foregoing tables that at the time the statistics were compiled, viz., April, 1934, the proposals of many of the Local Authorities had not been finally settled, but it is shown that extensive clearance of slum property is contemplated, comprising the demolition of over 10,000 unfit houses. The building of a large number of new houses is foreshadowed, and also improvements to many houses which come within the category of borderline premises.

**Housing Statistics for the Year 1933.**—The following statement summarises the ordinary housing activities in the various districts in the Administrative County during the year 1933, as extracted from the local health reports :—

NEW HOUSES.—Number of new houses erected during the year :—

|                                                           |     |     |     |       |
|-----------------------------------------------------------|-----|-----|-----|-------|
| (a) Total (including numbers given separately under (b) ) | ... | ... | ... | 13384 |
| (i) By the Local Authority                                | ... | ... | ... | 2311  |
| (ii) By other Local Authorities                           | ... | ... | ... | 600   |
| (iii) By other bodies and persons                         | ... | ... | ... | 10473 |
| (b) With State assistance under the Housing Acts :        |     |     |     |       |
| (i) By the Local Authority                                | ... | ... | ... | 2244  |
| (ii) By other bodies or persons                           | ... | ... | ... | 89    |



## 1. INSPECTIONS.—Inspection of dwelling-houses during the year :—

|                                                                                                                                                                              |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| (1) (a) Total number of dwelling-houses inspected for housing defects<br>(under Public Health or Housing Acts) ... ..                                                        | 43,432 |
| (b) Number of inspections made for the purpose ... ..                                                                                                                        | 76,760 |
| (2) (a) Number of dwelling-houses (included under sub-head (1))<br>which were inspected and recorded under the Housing<br>Consolidated Regulations, 1925 ... ..              | 13,415 |
| (b) Number of inspections made for the purpose ... ..                                                                                                                        | 23,254 |
| (3) Number of dwelling-houses found to be in a state so dangerous or<br>injurious to health as to be unfit for human habitation ... ..                                       | 4,277  |
| (4) Number of dwelling-houses (exclusive of those referred to under the<br>preceding sub-head) found not to be in all respects reasonably fit<br>for human habitation ... .. | 14,742 |

## 2. Remedy of defects during the year without service of formal notices :—

|                                                                                                                                       |        |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|
| Number of defective dwelling-houses rendered fit in consequence of<br>informal action by the Local Authority or their officers ... .. | 12,754 |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|

## 3. Action under Statutory Powers during the Year :—

## A. Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :—

|                                                                                                   |       |
|---------------------------------------------------------------------------------------------------|-------|
| (1) Number of dwelling-houses in respect of which notices were served<br>requiring repairs ... .. | 1,180 |
| (2) Number of dwelling-houses which were rendered fit after service of<br>formal notices :—       |       |
| (a) By owners ... ..                                                                              | 799   |
| (b) By local authority in default of owners ... ..                                                | 35    |

## B.—Proceedings under Public Health Acts :—

|                                                                                                                  |       |
|------------------------------------------------------------------------------------------------------------------|-------|
| (1) Number of dwelling-houses in respect of which notices were served<br>requiring defects to be remedied ... .. | 2,986 |
| (2) Number of dwelling-houses in which defects were remedied after<br>service of formal notices :—               |       |
| (a) By owners ... ..                                                                                             | 1,791 |
| (b) By local authority in default of owners ... ..                                                               | 36    |

## C.—Proceedings under sections 19 and 21 of the Housing Act, 1930 :—

|                                                                                         |     |
|-----------------------------------------------------------------------------------------|-----|
| (1) Number of dwelling-houses in respect of which Demolition Orders<br>were made ... .. | 208 |
| (2) Number of dwelling-houses demolished in pursuance of Demolition<br>Orders ... ..    | 80  |

## D.—Proceedings under section 20 of the Housing Act, 1930 :—

|                                                                                                                                                                      |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| (1) Number of separate tenements or underground rooms in respect of<br>which Closing Orders were made ... ..                                                         | 7 |
| (2) Number of separate tenements or underground rooms in respect of<br>which Closing Orders were determined, the tenement or room<br>having been rendered fit ... .. | 4 |

Table 5, pages 127 to 129, shows the number of new houses erected during the year 1933 in the County districts by the Local Authorities (2,311) and by other bodies or persons (11,073), and also the total number of houses inspected by the local officials in regard to defects (43,432), the number found unfit for habitation (4,277), found not reasonably fit (14,742), and the number of houses rendered fit as the result of informal action (12,754).

The action taken by the Local Authorities under the Statutory Powers in regard to housing is shown in total, in items A to D in the tabular statement above.

## ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE 5—HOUSING.  
SUMMARY OF WORK CARRIED OUT DURING THE YEAR 1933.

| URBAN DISTRICTS.               | NEW HOUSES<br>ERECTED DURING YEAR. |                               |                                         |                                                     |                                         | UNFIT DWELLINGS.                                          |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
|--------------------------------|------------------------------------|-------------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------|
|                                | Total.                             | By<br>Local<br>Author-<br>ity | By<br>other<br>Bodies<br>or<br>Persons. | With State<br>Assistance under<br>the Housing Acts. |                                         | Total<br>No. in-<br>spected<br>for<br>Housing<br>defects. | No. of<br>In-<br>spec-<br>tions<br>made<br>for the<br>pur-<br>pose. | No. of<br>Houses<br>in-<br>spected<br>under<br>Housing<br>Con.<br>Regs.<br>(included<br>in total<br>col.) | No. of<br>In-<br>spec-<br>tions<br>made<br>for the<br>pur-<br>pose. | No.<br>found<br>unfit<br>for<br>human<br>habita-<br>tion. | No.<br>found<br>not<br>reason-<br>ably fit<br>for<br>human<br>habita-<br>tion. | No.<br>rendered<br>fit as<br>result of<br>informal<br>action. |
|                                |                                    |                               |                                         | By<br>Local<br>Au-<br>thority.                      | By<br>other<br>Bodies<br>or<br>Persons. |                                                           |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
| Abram ... ..                   | 1                                  | ...                           | 1                                       | ...                                                 | ...                                     | 221                                                       | 377                                                                 | 50                                                                                                        | 81                                                                  | 15                                                        | 35                                                                             | 74                                                            |
| Accrington (B) ... ..          | 97                                 | 42                            | 55                                      | 42                                                  | ...                                     | 311                                                       | 958                                                                 | 309                                                                                                       | 950                                                                 | ...                                                       | 287                                                                            | 258                                                           |
| Adlington ... ..               | 5                                  | ...                           | 5                                       | ...                                                 | ...                                     | 43                                                        | 54                                                                  | 18                                                                                                        | 18                                                                  | 18                                                        | 11                                                                             | 11                                                            |
| Ashton-in-Makerfield ... ..    | 33                                 | ...                           | 33                                      | ...                                                 | ...                                     | 610                                                       | 610                                                                 | 254                                                                                                       | 254                                                                 | 96                                                        | 360                                                                            | 316                                                           |
| Ashton-under-Lyne (B) ... ..   | 255                                | 146                           | 109                                     | 146                                                 | ...                                     | 247                                                       | 723                                                                 | 247                                                                                                       | 723                                                                 | 2                                                         | 245                                                                            | 165                                                           |
| Aspull ... ..                  | 6                                  | ...                           | 6                                       | ...                                                 | ...                                     | 415                                                       | 1560                                                                | 99                                                                                                        | 180                                                                 | 36                                                        | 316                                                                            | 235                                                           |
| Atherton ... ..                | 192                                | 138                           | 54                                      | 138                                                 | ...                                     | 459                                                       | 706                                                                 | 158                                                                                                       | 197                                                                 | 129                                                       | 297                                                                            | 160                                                           |
| Audenshaw ... ..               | 200                                | ...                           | 200                                     | ...                                                 | ...                                     | 224                                                       | 613                                                                 | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | 10                                                            |
| Bacup (B) ... ..               | 14                                 | ...                           | 14                                      | ...                                                 | ...                                     | 409                                                       | 654                                                                 | 23                                                                                                        | 71                                                                  | 23                                                        | ...                                                                            | ...                                                           |
| Barrowford ... ..              | 27                                 | ...                           | 27                                      | ...                                                 | ...                                     | 47                                                        | 47                                                                  | 10                                                                                                        | 10                                                                  | 10                                                        | 37                                                                             | 37                                                            |
| Billinge and Winstanley ... .. | 18                                 | ...                           | 18                                      | ...                                                 | ...                                     | 215                                                       | 215                                                                 | 120                                                                                                       | 240                                                                 | 101                                                       | 114                                                                            | 113                                                           |
| Blackrod ... ..                | 1                                  | ...                           | 1                                       | ...                                                 | ...                                     | 119                                                       | 244                                                                 | 14                                                                                                        | 28                                                                  | 11                                                        | 19                                                                             | 10                                                            |
| Brierfield ... ..              | 29                                 | ...                           | 29                                      | ...                                                 | ...                                     | 242                                                       | 242                                                                 | 208                                                                                                       | 208                                                                 | ...                                                       | 32                                                                             | 21                                                            |
| Carnforth ... ..               | 4                                  | ...                           | 4                                       | ...                                                 | ...                                     | 88                                                        | 639                                                                 | 17                                                                                                        | 34                                                                  | ...                                                       | ...                                                                            | 49                                                            |
| Chadderton ... ..              | 120                                | ...                           | 120                                     | ...                                                 | ...                                     | 1187                                                      | 2160                                                                | 457                                                                                                       | 700                                                                 | 198                                                       | 863                                                                            | 707                                                           |
| Chorley (B) ... ..             | 73                                 | ...                           | 73                                      | ...                                                 | ...                                     | 710                                                       | 730                                                                 | 538                                                                                                       | 557                                                                 | 6                                                         | 380                                                                            | 118                                                           |
| Church ... ..                  | 3                                  | ...                           | 3                                       | ...                                                 | ...                                     | 125                                                       | 140                                                                 | 85                                                                                                        | 92                                                                  | 7                                                         | 8                                                                              | 5                                                             |
| Clayton-le-Moors ... ..        | 39                                 | 26                            | 13                                      | 26                                                  | ...                                     | 139                                                       | 218                                                                 | 87                                                                                                        | 180                                                                 | 43                                                        | 44                                                                             | 38                                                            |
| Clitheroe (B) ... ..           | 10                                 | ...                           | 10                                      | ...                                                 | ...                                     | 196                                                       | 285                                                                 | 156                                                                                                       | 389                                                                 | 15                                                        | 103                                                                            | 61                                                            |
| Colne (B) ... ..               | 32                                 | ...                           | 32                                      | ...                                                 | ...                                     | 257                                                       | 301                                                                 | 207                                                                                                       | 416                                                                 | 16                                                        | 50                                                                             | 66                                                            |
| Crompton ... ..                | 8                                  | ...                           | 8                                       | ...                                                 | ...                                     | 258                                                       | 439                                                                 | 224                                                                                                       | 393                                                                 | 178                                                       | 37                                                                             | 35                                                            |
| Croston ... ..                 | 3                                  | ...                           | 3                                       | ...                                                 | ...                                     | 56                                                        | 56                                                                  | ...                                                                                                       | ...                                                                 | 6                                                         | 14                                                                             | 14                                                            |
| Dalton-in-Furness ... ..       | 19                                 | ...                           | 19                                      | ...                                                 | ...                                     | 1388                                                      | 1388                                                                | 142                                                                                                       | 142                                                                 | 25                                                        | 81                                                                             | 44                                                            |
| Darwen (B) ... ..              | 47                                 | 25                            | 22                                      | 24                                                  | ...                                     | 4048                                                      | 5031                                                                | 211                                                                                                       | 398                                                                 | 21                                                        | 190                                                                            | 101                                                           |
| Denton ... ..                  | 167                                | 2                             | 165                                     | 2                                                   | ...                                     | 229                                                       | 388                                                                 | 7                                                                                                         | 21                                                                  | ...                                                       | 7                                                                              | 207                                                           |
| Droylsden ... ..               | 388                                | ...                           | 388                                     | ...                                                 | ...                                     | 365                                                       | 365                                                                 | 130                                                                                                       | 130                                                                 | ...                                                       | 130                                                                            | 125                                                           |
| Eccles (B) ... ..              | 67                                 | 12                            | 55                                      | 12                                                  | ...                                     | 124                                                       | 124                                                                 | 76                                                                                                        | 76                                                                  | 3                                                         | 120                                                                            | 63                                                            |
| Failsworth ... ..              | 203                                | ...                           | 203                                     | ...                                                 | ...                                     | 315                                                       | 374                                                                 | 99                                                                                                        | 99                                                                  | 114                                                       | 117                                                                            | 97                                                            |
| Farnworth ... ..               | 166                                | 91                            | 75                                      | 89                                                  | ...                                     | 1089                                                      | 5957                                                                | 254                                                                                                       | 334                                                                 | 133                                                       | 778                                                                            | 755                                                           |
| Fleetwood (B) ... ..           | 182                                | 100                           | 82                                      | 100                                                 | ...                                     | 303                                                       | 852                                                                 | 170                                                                                                       | 630                                                                 | ...                                                       | 98                                                                             | 95                                                            |
| Formby ... ..                  | 90                                 | ...                           | 90                                      | ...                                                 | ...                                     | 48                                                        | 51                                                                  | 25                                                                                                        | 25                                                                  | 1                                                         | 29                                                                             | 21                                                            |
| Fulwood ... ..                 | 127                                | ...                           | 127                                     | ...                                                 | ...                                     | 100                                                       | 100                                                                 | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| Golborne ... ..                | 42                                 | 26                            | 16                                      | 26                                                  | ...                                     | 956                                                       | 1218                                                                | 125                                                                                                       | 136                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| Grange-over-Sands ... ..       | 9                                  | ...                           | 9                                       | ...                                                 | ...                                     | 8                                                         | 8                                                                   | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | 8                                                             |
| Great Crosby ... ..            | 475                                | ...                           | 475                                     | ...                                                 | ...                                     | 739                                                       | 792                                                                 | 138                                                                                                       | 407                                                                 | 19                                                        | 92                                                                             | 87                                                            |
| Great Harwood ... ..           | 31                                 | ...                           | 31                                      | ...                                                 | 16                                      | 108                                                       | 108                                                                 | 13                                                                                                        | 27                                                                  | ...                                                       | 49                                                                             | 34                                                            |
| Haslingden (B) ... ..          | 10                                 | ...                           | 10                                      | ...                                                 | ...                                     | 265                                                       | 426                                                                 | 240                                                                                                       | 392                                                                 | 71                                                        | 169                                                                            | 31                                                            |
| Haydock ... ..                 | 40                                 | 20                            | 20                                      | 20                                                  | ...                                     | 363                                                       | 632                                                                 | 133                                                                                                       | 172                                                                 | ...                                                       | 269                                                                            | 259                                                           |
| Heywood (B) ... ..             | 160                                | ...                           | 160                                     | ...                                                 | ...                                     | 53                                                        | 95                                                                  | 20                                                                                                        | 36                                                                  | 13                                                        | 40                                                                             | 38                                                            |
| Hindley ... ..                 | 75                                 | 56                            | 19                                      | ...                                                 | ...                                     | 813                                                       | 813                                                                 | 5                                                                                                         | 5                                                                   | 2                                                         | 5                                                                              | 686                                                           |



TABLE 5—continued.

| URBAN DISTRICTS.            | NEW HOUSES<br>ERECTED DURING YEAR. |                                |                                         |                                                     |                                         | UNFIT DWELLINGS.                                          |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
|-----------------------------|------------------------------------|--------------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------|
|                             | Total.                             | By<br>Local<br>Author-<br>ity. | By<br>other<br>Bodies<br>or<br>Persons. | With State<br>Assistance under<br>the Housing Acts. |                                         | Total<br>No. in-<br>spected<br>for<br>Housing<br>defects. | No. of<br>In-<br>spec-<br>tions<br>made<br>for the<br>pur-<br>pose. | No. of<br>Houses<br>in-<br>spected<br>under<br>Housing<br>Con.<br>Regs.<br>(included<br>in total<br>col.) | No. of<br>In-<br>spec-<br>tions<br>made<br>for the<br>pur-<br>pose. | No.<br>found<br>unfit<br>for<br>human<br>habita-<br>tion. | No.<br>found<br>not<br>reason-<br>ably fit<br>for<br>human<br>habita-<br>tion. | No.<br>rendered<br>fit as<br>result of<br>informal<br>action. |
|                             |                                    |                                |                                         | By<br>Local<br>Au-<br>thority.                      | By<br>other<br>Bodies<br>or<br>Persons. |                                                           |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
| Horwich ... ..              | 87                                 | ...                            | 87                                      | ...                                                 | ...                                     | 438                                                       | 438                                                                 | 57                                                                                                        | 57                                                                  | 10                                                        | 428                                                                            | 401                                                           |
| Huyton-with-Roby ...        | 736                                | 36                             | *700                                    | 36                                                  | ...                                     | 52                                                        | 250                                                                 | 97                                                                                                        | 244                                                                 | 88                                                        | 39                                                                             | 37                                                            |
| Ince-in-Makerfield ...      | 44                                 | 24                             | 20                                      | 24                                                  | ...                                     | 1104                                                      | 4500                                                                | 165                                                                                                       | 350                                                                 | ...                                                       | 346                                                                            | 332                                                           |
| Irlam ... ..                | 68                                 | ...                            | 68                                      | ...                                                 | ...                                     | 123                                                       | 123                                                                 | 39                                                                                                        | 39                                                                  | 12                                                        | 52                                                                             | 49                                                            |
| Kearsley ... ..             | 12                                 | ...                            | 12                                      | ...                                                 | ...                                     | 108                                                       | 108                                                                 | 41                                                                                                        | 41                                                                  | 41                                                        | ...                                                                            | 34                                                            |
| Kirkham ... ..              | 11                                 | ...                            | 11                                      | ...                                                 | ...                                     | 51                                                        | 86                                                                  | 39                                                                                                        | 64                                                                  | 8                                                         | 30                                                                             | 2                                                             |
| Lancaster (B) ... ..        | 459                                | 150                            | 309                                     | 150                                                 | ...                                     | 178                                                       | 180                                                                 | 83                                                                                                        | 91                                                                  | 4                                                         | 174                                                                            | 243                                                           |
| Lees ... ..                 | ...                                | ...                            | ...                                     | ...                                                 | ...                                     | 74                                                        | 86                                                                  | 52                                                                                                        | 12                                                                  | ...                                                       | 10                                                                             | 10                                                            |
| Leigh (B) ... ..            | 505                                | 296                            | 209                                     | 296                                                 | ...                                     | 1895                                                      | 3939                                                                | 1497                                                                                                      | 3143                                                                | 445                                                       | 1052                                                                           | 373                                                           |
| Leyland ... ..              | 58                                 | 13                             | 45                                      | 13                                                  | ...                                     | 77                                                        | 146                                                                 | 60                                                                                                        | 60                                                                  | 18                                                        | 42                                                                             | ...                                                           |
| Litherland ... ..           | 161                                | 50                             | 111                                     | 50                                                  | ...                                     | 677                                                       | 2014                                                                | 72                                                                                                        | 249                                                                 | 56                                                        | 621                                                                            | 600                                                           |
| Littleborough ... ..        | 11                                 | ...                            | 11                                      | ...                                                 | ...                                     | 265                                                       | 484                                                                 | 71                                                                                                        | 158                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| †Little Hulton ... ..       | ...                                | ...                            | ...                                     | ...                                                 | ...                                     | 4                                                         | 6                                                                   | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | 3                                                             |
| Little Lever ... ..         | 31                                 | 24                             | 7                                       | 24                                                  | ...                                     | 27                                                        | 49                                                                  | 22                                                                                                        | 38                                                                  | 6                                                         | 16                                                                             | 8                                                             |
| Longridge ... ..            | ...                                | ...                            | ...                                     | ...                                                 | ...                                     | 140                                                       | 140                                                                 | 25                                                                                                        | 25                                                                  | ...                                                       | ...                                                                            | ...                                                           |
| Lytham Saint Anne's (B) ... | 119                                | 8                              | 111                                     | ...                                                 | ...                                     | 301                                                       | 301                                                                 | 71                                                                                                        | 71                                                                  | 1                                                         | 29                                                                             | 29                                                            |
| Middleton (B) ... ..        | 110                                | ...                            | 110                                     | ...                                                 | ...                                     | 205                                                       | 493                                                                 | 118                                                                                                       | 313                                                                 | 57                                                        | 87                                                                             | 75                                                            |
| Milnrow ... ..              | 14                                 | 12                             | 2                                       | 12                                                  | ...                                     | 142                                                       | 350                                                                 | 57                                                                                                        | 57                                                                  | ...                                                       | 142                                                                            | 20                                                            |
| Morecambe & Heysham (B)     | 378                                | ...                            | 378                                     | ...                                                 | ...                                     | 195                                                       | 201                                                                 | 76                                                                                                        | 82                                                                  | 8                                                         | 43                                                                             | 25                                                            |
| Mossley (B) ... ..          | 11                                 | ...                            | 11                                      | ...                                                 | ...                                     | 110                                                       | 297                                                                 | 9                                                                                                         | 21                                                                  | ...                                                       | 93                                                                             | 83                                                            |
| Nelson (B) ... ..           | 106                                | 20                             | 86                                      | 20                                                  | ...                                     | 435                                                       | 556                                                                 | 69                                                                                                        | 101                                                                 | ...                                                       | 40                                                                             | 39                                                            |
| Newton-in-Makerfield ...    | 158                                | 100                            | 58                                      | 100                                                 | ...                                     | 176                                                       | 533                                                                 | 127                                                                                                       | 291                                                                 | 24                                                        | 32                                                                             | 16                                                            |
| ‡Norden ... ..              | 8                                  | ...                            | 8                                       | ...                                                 | ...                                     | 5                                                         | 15                                                                  | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| Ormskirk ... ..             | 217                                | 4                              | 213                                     | 4                                                   | ...                                     | 333                                                       | 386                                                                 | 24                                                                                                        | 50                                                                  | 90                                                        | 331                                                                            | 307                                                           |
| Orrell ... ..               | 139                                | 100                            | 39                                      | 100                                                 | ...                                     | 334                                                       | 334                                                                 | ...                                                                                                       | ...                                                                 | 94                                                        | 173                                                                            | 43                                                            |
| Oswaldtwistle ... ..        | 14                                 | ...                            | 14                                      | ...                                                 | ...                                     | 670                                                       | 1605                                                                | 151                                                                                                       | 460                                                                 | ...                                                       | 347                                                                            | 293                                                           |
| Padiham ... ..              | 69                                 | 64                             | 5                                       | 64                                                  | ...                                     | 565                                                       | 1373                                                                | 285                                                                                                       | 838                                                                 | 199                                                       | 201                                                                            | 180                                                           |
| Poulton-le-Fylde ... ..     | 15                                 | ...                            | 15                                      | ...                                                 | ...                                     | 42                                                        | 73                                                                  | 6                                                                                                         | 15                                                                  | ...                                                       | 17                                                                             | ...                                                           |
| Preesall ... ..             | 8                                  | ...                            | 8                                       | ...                                                 | ...                                     | 120                                                       | 188                                                                 | 19                                                                                                        | 51                                                                  | ...                                                       | 13                                                                             | 53                                                            |
| Prescot ... ..              | 51                                 | ...                            | 51                                      | ...                                                 | ...                                     | 314                                                       | 365                                                                 | 231                                                                                                       | 256                                                                 | 3                                                         | 14                                                                             | 148                                                           |
| Prestwich ... ..            | 291                                | 9                              | 282                                     | 9                                                   | ...                                     | 772                                                       | 1158                                                                | 19                                                                                                        | 57                                                                  | 5                                                         | 14                                                                             | 734                                                           |
| Radcliffe ... ..            | 102                                | ...                            | 102                                     | ...                                                 | ...                                     | 84                                                        | 96                                                                  | 22                                                                                                        | 40                                                                  | 8                                                         | 14                                                                             | 36                                                            |
| Rainford ... ..             | 59                                 | 50                             | 9                                       | 50                                                  | ...                                     | 56                                                        | 97                                                                  | ...                                                                                                       | ...                                                                 | ...                                                       | 48                                                                             | 7                                                             |
| Ramsbottom ... ..           | 37                                 | ...                            | 37                                      | ...                                                 | ...                                     | 190                                                       | 294                                                                 | 44                                                                                                        | 81                                                                  | 44                                                        | 5                                                                              | 22                                                            |
| Rawtenstall (B) ... ..      | 33                                 | ...                            | 33                                      | ...                                                 | ...                                     | 246                                                       | 492                                                                 | 246                                                                                                       | 246                                                                 | 98                                                        | 148                                                                            | 14                                                            |
| Rishton ... ..              | 10                                 | ...                            | 10                                      | ...                                                 | ...                                     | 200                                                       | 500                                                                 | 7                                                                                                         | 30                                                                  | 7                                                         | 90                                                                             | 90                                                            |
| Royton ... ..               | 14                                 | ...                            | 14                                      | ...                                                 | ...                                     | 400                                                       | 400                                                                 | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| Skelmersdale ... ..         | 30                                 | 6                              | 24                                      | 6                                                   | ...                                     | 235                                                       | 320                                                                 | ...                                                                                                       | ...                                                                 | ...                                                       | 22                                                                             | 22                                                            |
| Standish-with-Langtree ...  | 97                                 | 18                             | 79                                      | 18                                                  | ...                                     | 202                                                       | 237                                                                 | 176                                                                                                       | 176                                                                 | 176                                                       | 35                                                                             | 21                                                            |
| Stretford (B) ... ..        | 604                                | ...                            | 604                                     | ...                                                 | ...                                     | 164                                                       | 198                                                                 | 69                                                                                                        | 84                                                                  | 29                                                        | 164                                                                            | 110                                                           |

\* Includes 600 erected by another Local Authority. † District incorporated with Worsley, 1st April, 1933.  
‡ District abolished 1st October, 1933.

TABLE 5—continued.

| URBAN DISTRICTS.            | NEW HOUSES<br>ERECTED DURING YEAR. |                                |                                         |                                                     |                                         | UNFIT DWELLINGS.                                          |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
|-----------------------------|------------------------------------|--------------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------|
|                             | Total.                             | By<br>Local<br>Author-<br>ity. | By<br>other<br>Bodies<br>or<br>Persons. | With State<br>Assistance under<br>the Housing Acts. |                                         | Total<br>No. in-<br>spected<br>for<br>Housing<br>defects. | No. of<br>In-<br>spec-<br>tions<br>made<br>for the<br>pur-<br>pose. | No. of<br>Houses<br>in-<br>spected<br>under<br>Housing<br>Con.<br>Regs.<br>(included<br>in total<br>col.) | No. of<br>In-<br>spec-<br>tions<br>made<br>for the<br>pur-<br>pose. | No.<br>found<br>unfit<br>for<br>human<br>habita-<br>tion. | No.<br>found<br>not<br>reason-<br>ably fit<br>for<br>human<br>habita-<br>tion. | No.<br>rendered<br>fit as<br>result of<br>informal<br>action. |
|                             |                                    |                                |                                         | By<br>Local<br>Au-<br>thority.                      | By<br>other<br>Bodies<br>or<br>Persons. |                                                           |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
| Swinton and Pendlebury ...  | 301                                | 135                            | 166                                     | 135                                                 | ...                                     | 1831                                                      | 4827                                                                | 47                                                                                                        | 317                                                                 | 64                                                        | 777                                                                            | 297                                                           |
| Thornton Cleveleys ...      | 182                                | ...                            | 182                                     | ...                                                 | ...                                     | 130                                                       | 211                                                                 | ...                                                                                                       | ...                                                                 | ...                                                       | 17                                                                             | 17                                                            |
| Tottington ...              | 9                                  | ...                            | 9                                       | ...                                                 | ...                                     | 36                                                        | 36                                                                  | 36                                                                                                        | 36                                                                  | 9                                                         | 27                                                                             | 5                                                             |
| Trawden ...                 | ...                                | ...                            | ...                                     | ...                                                 | ...                                     | 19                                                        | 25                                                                  | ...                                                                                                       | ...                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| Turton ...                  | 34                                 | ...                            | 34                                      | ...                                                 | ...                                     | 650                                                       | 775                                                                 | 163                                                                                                       | 208                                                                 | ...                                                       | 52                                                                             | 47                                                            |
| Tyldesley ...               | 15                                 | ...                            | 15                                      | ...                                                 | ...                                     | 152                                                       | 292                                                                 | ...                                                                                                       | ...                                                                 | ...                                                       | 48                                                                             | 48                                                            |
| Ulverston ...               | 49                                 | 16                             | 33                                      | 16                                                  | ...                                     | 129                                                       | 360                                                                 | 38                                                                                                        | 38                                                                  | ...                                                       | 129                                                                            | 91                                                            |
| Upholland ...               | 81                                 | 32                             | 49                                      | 32                                                  | ...                                     | 153                                                       | 193                                                                 | 1                                                                                                         | 2                                                                   | 63                                                        | 90                                                                             | ...                                                           |
| Urmston ...                 | 439                                | ...                            | 439                                     | ...                                                 | ...                                     | 59                                                        | 96                                                                  | 59                                                                                                        | 96                                                                  | 44                                                        | 15                                                                             | 7                                                             |
| Walton-le-Dale ...          | 94                                 | ...                            | 94                                      | ...                                                 | ...                                     | 165                                                       | 281                                                                 | 24                                                                                                        | 96                                                                  | 50                                                        | 17                                                                             | ...                                                           |
| Wardle ...                  | 3                                  | ...                            | 3                                       | ...                                                 | ...                                     | 148                                                       | 148                                                                 | 148                                                                                                       | 148                                                                 | 35                                                        | 36                                                                             | 12                                                            |
| Waterloo-with-Seaforth ...  | 129                                | 9                              | 120                                     | 9                                                   | ...                                     | 1968                                                      | 2083                                                                | 76                                                                                                        | 297                                                                 | 1                                                         | 1771                                                                           | 1685                                                          |
| Westhoughton ...            | 68                                 | ...                            | 68                                      | ...                                                 | ...                                     | 290                                                       | 735                                                                 | 258                                                                                                       | 639                                                                 | 203                                                       | 55                                                                             | 163                                                           |
| Whitefield ...              | 111                                | ...                            | 111                                     | ...                                                 | ...                                     | 303                                                       | 566                                                                 | 77                                                                                                        | 260                                                                 | 27                                                        | 28                                                                             | 25                                                            |
| Whitworth ...               | 10                                 | ...                            | 10                                      | ...                                                 | ...                                     | 234                                                       | 280                                                                 | 208                                                                                                       | 220                                                                 | 2                                                         | 72                                                                             | 29                                                            |
| Widnes (B) ...              | 384                                | 246                            | 138                                     | 246                                                 | ...                                     | 2551                                                      | 4303                                                                | 1125                                                                                                      | 1125                                                                | 456                                                       | 350                                                                            | ...                                                           |
| Withnell ...                | 8                                  | ...                            | 8                                       | ...                                                 | ...                                     | 33                                                        | 52                                                                  | 21                                                                                                        | 21                                                                  | ...                                                       | 3                                                                              | 13                                                            |
| Worsley ...                 | 253                                | 54                             | 199                                     | 54                                                  | ...                                     | 131                                                       | 316                                                                 | 111                                                                                                       | 263                                                                 | 45                                                        | 86                                                                             | 44                                                            |
| Total Urban Districts ...   | 10515                              | 2160                           | 8355                                    | 2093                                                | 16                                      | 38583                                                     | 69683                                                               | 11607                                                                                                     | 20408                                                               | 3842                                                      | 13911                                                                          | 12096                                                         |
| RURAL DISTRICTS.            |                                    |                                |                                         |                                                     |                                         |                                                           |                                                                     |                                                                                                           |                                                                     |                                                           |                                                                                |                                                               |
| *Barton-upon-Irwell ...     | 96                                 | ...                            | 96                                      | ...                                                 | ...                                     | 4                                                         | 8                                                                   | 4                                                                                                         | 8                                                                   | ...                                                       | 4                                                                              | 4                                                             |
| Blackburn ...               | 57                                 | ...                            | 57                                      | ...                                                 | ...                                     | 168                                                       | 221                                                                 | 168                                                                                                       | 221                                                                 | 2                                                         | 34                                                                             | 32                                                            |
| Burnley ...                 | 134                                | ...                            | 134                                     | ...                                                 | ...                                     | 139                                                       | 161                                                                 | 60                                                                                                        | 60                                                                  | 11                                                        | 33                                                                             | 21                                                            |
| †Bury ...                   | 4                                  | ...                            | 4                                       | ...                                                 | ...                                     | 152                                                       | 180                                                                 | ...                                                                                                       | ...                                                                 | 7                                                         | 25                                                                             | 38                                                            |
| Chorley ...                 | 203                                | 16                             | 187                                     | 16                                                  | ...                                     | 542                                                       | 880                                                                 | 301                                                                                                       | 398                                                                 | 9                                                         | 172                                                                            | 164                                                           |
| Clitheroe ...               | 25                                 | ...                            | 25                                      | ...                                                 | ...                                     | 319                                                       | 319                                                                 | 15                                                                                                        | 15                                                                  | 3                                                         | 10                                                                             | 3                                                             |
| Fylde ...                   | 742                                | ...                            | 742                                     | ...                                                 | 66                                      | 389                                                       | 389                                                                 | 52                                                                                                        | 52                                                                  | ...                                                       | 4                                                                              | 43                                                            |
| Garstang ...                | 68                                 | 10                             | 58                                      | 10                                                  | ...                                     | 254                                                       | 987                                                                 | 177                                                                                                       | 177                                                                 | 87                                                        | 90                                                                             | 10                                                            |
| Lancaster ...               | 90                                 | ...                            | 90                                      | ...                                                 | ...                                     | 660                                                       | 660                                                                 | 214                                                                                                       | 214                                                                 | ...                                                       | 14                                                                             | 12                                                            |
| ‡Leigh ...                  | 7                                  | ...                            | 7                                       | ...                                                 | 7                                       | 732                                                       | 852                                                                 | 213                                                                                                       | 213                                                                 | ...                                                       | ...                                                                            | ...                                                           |
| Limelhurst ...              | 16                                 | ...                            | 16                                      | ...                                                 | ...                                     | 350                                                       | 350                                                                 | 37                                                                                                        | 48                                                                  | 42                                                        | 229                                                                            | 166                                                           |
| Lunesdale ...               | 15                                 | ...                            | 15                                      | ...                                                 | ...                                     | 120                                                       | 150                                                                 | ...                                                                                                       | ...                                                                 | 26                                                        | ...                                                                            | 12                                                            |
| Preston ...                 | 443                                | ...                            | 443                                     | ...                                                 | ...                                     | 282                                                       | 543                                                                 | 192                                                                                                       | 453                                                                 | 34                                                        | 53                                                                             | ...                                                           |
| Ulverston ...               | 42                                 | ...                            | 42                                      | ...                                                 | ...                                     | 159                                                       | 159                                                                 | 70                                                                                                        | 70                                                                  | 59                                                        | 20                                                                             | 35                                                            |
| Warrington ...              | 205                                | 75                             | 130                                     | 75                                                  | ...                                     | 168                                                       | 489                                                                 | 87                                                                                                        | 261                                                                 | 19                                                        | 38                                                                             | 18                                                            |
| West Lancashire ...         | 394                                | 38                             | 356                                     | 38                                                  | ...                                     | 108                                                       | 312                                                                 | 108                                                                                                       | 312                                                                 | 26                                                        | 59                                                                             | 54                                                            |
| Whiston ...                 | 216                                | ...                            | 216                                     | ...                                                 | ...                                     | 255                                                       | 320                                                                 | 77                                                                                                        | 259                                                                 | 77                                                        | 46                                                                             | 46                                                            |
| Wigan ...                   | 112                                | 12                             | 100                                     | 12                                                  | ...                                     | 48                                                        | 97                                                                  | 33                                                                                                        | 85                                                                  | 33                                                        | ...                                                                            | ...                                                           |
| Total Rural Districts ...   | 2869                               | 151                            | 2718                                    | 151                                                 | 73                                      | 4849                                                      | 7077                                                                | 1808                                                                                                      | 2846                                                                | 435                                                       | 831                                                                            | 658                                                           |
| Total Urban Districts ...   | 10515                              | 2160                           | 8355                                    | 2093                                                | 16                                      | 38583                                                     | 69683                                                               | 11607                                                                                                     | 20408                                                               | 3842                                                      | 13911                                                                          | 12096                                                         |
| Total Administrative County | 13384                              | 2311                           | 11073                                   | 2244                                                | 89                                      | 43432                                                     | 76760                                                               | 13415                                                                                                     | 23254                                                               | 4277                                                      | 14742                                                                          | 12754                                                         |

Districts abolished.—\* 1st April, 1933; † part 1st April and part 1st October, 1933; ‡ 1st October, 1933.



New Houses.—The statement below gives the number of new houses erected in the Administrative County during the past 10 years :—

| Year     | No. of<br>new houses | Year     | No. of<br>new houses |
|----------|----------------------|----------|----------------------|
| 1924 ... | 4891                 | 1929 ... | 8940                 |
| 1925 ... | 6859                 | 1930 ... | 6336                 |
| 1926 ... | 8397                 | 1931 ... | 8640                 |
| 1927 ... | 10470                | 1932 ... | 9926                 |
| 1928 ... | 6646                 | 1933 ... | 13384                |
|          |                      | Total    | 84,489               |

## HOUSING CONDITIONS.

The following information on the housing conditions in the County area has been extracted from the local reports :—

1.—GENERAL OBSERVATIONS AS TO HOUSING CONDITIONS.—Ashton-under-Lyne (B), houses very congested in parts of Borough and there is a lack of building sites ; Bacup (B), back-to-back houses are prevalent, there are about 250 basement houses ; Billinge and Winstanley, dampness and defective light and ventilation are prevalent in the Chapel End portion of the district ; Colne (B), 665 back-to-back houses deficient in light and ventilation ; Denton, 470 of the older houses scheduled for demolition or re-conditioning ; Failsworth, 125 houses inspected and scheduled as clearance areas ; Leigh (B), approximately 10 per cent. of the houses are about 100 years old and below a reasonable standard ; Padiham, over 70 per cent. of the houses have small yards and are without frontage ; Rawtenstall (B), approximately 138 occupied basements and back-to-earth dwellings built under other houses (chiefly back to back) ; Swinton and Pendlebury, 116 houses receiving attention of the Ministry with a view to demolition ; Urmston, 219 houses scheduled for demolition ; Garstang (R), 87 houses considered unfit for habitation. In a large number of districts, housing conditions are reported as generally satisfactory.

2.—SUFFICIENCY OF SUPPLY OF HOUSES.—EXTENT OF SHORTAGE, ETC.—A definite shortage is reported in about 60 districts. The population is stated to be increasing in 18 districts and inclined to decrease in 12 others. Sites are expensive or difficult to find in 10 districts and the danger of mining subsidence restricts availability of safe building sites in 5 districts. Small houses at low rents are in great demand in many areas. A few of the observations include :—Ashton-in-Makerfield, 60 houses nearing completion, and plans in preparation for 40 others ; Ashton-under-Lyne (B), 5 year programme provides for the demolition and replacement of 264 houses ; Bacup (B), 5 year programme submitted to Ministry, clearance area scheme approved by Local Authority ; Chadderton, 5 year programme of 259 houses ; Colne (B), clearance area, consisting of 188 houses, and 27 other buildings in course of preparation ; Crompton, scheme approved for demolition or improvement of 200 houses ; Eccles (B), 100 houses in course of erection ; Failsworth, 111 houses contemplated ; Haydock, 80 houses in course of erection and 42 others contemplated ; Ince-in-Makerfield, 434 houses erected to December, 1933, and a further 54 in course of erection ; Leigh (B), 330 houses nearly completed and land to be purchased for a further 450 ; Morecambe and Heysham (B), scheme for 250 houses under consideration ; Newton-in-Makerfield, 100 houses nearly completed ; Padiham, 5 year programme in progress (150–200 houses) ; Prescott, 200 houses contemplated ; Rawtenstall (B), 402 houses and parts of buildings included in 5 year programme ; Swinton and Pendlebury, scheme for 100 houses under consideration ; Urmston, 219 houses to be demolished ; Widnes (B), 234 houses completed and site in Moor Lane secured ; Worsley, 106 houses for Engine Fold housing site ; West Lancashire (R), 100 houses almost completed ; Whiston (R), scheme for 100 houses commenced.

3.—OVERCROWDING.—Considerable overcrowding is said to exist in several districts including amongst others—Abram, 50 cases ; Chadderton, 82 cases ; Lancaster (B), 1,686 persons living more than 2 to a room ; Leigh (B), 60 per cent. of houses overcrowded ; Ormskirk, 100 cases ; Oswaldtwistle, about 100 cases ; Prescott, 16 per cent. of houses overcrowded ; Skelmersdale, over 50 cases.

High rents are stated to be responsible for the overcrowding in 39 districts ; trade depression and lack of houses each in 10 districts.

In many districts where overcrowding exists schemes are in progress or contemplated. Notices have been served in a few cases.

4.—FITNESS OF HOUSES.—Excessive cost of repairs, old property not worth extensive repairs or beyond repair, and rent arrears are amongst the difficulties found in action under the Public Health Acts or under the Housing Acts. Special measures taken with regard to insanitary property or arrangements made for the carrying out of programmes for repair include regular inspections, the conversion of back-to-back houses, the scheduling of property for replacement, etc. Some of the observations are detailed :—Accrington (B), insanitary property scheduled ; Atherton, 6 voluntarily

closed ; Blackrod, houses demolished ; Chadderton, 259 houses to be dealt with ; Colne (B), 730 to be demolished ; Denton, 470 houses scheduled ; Failsworth, 125 houses scheduled ; Ince-in-Makerfield, back-to-back houses converted to through houses as they become vacant ; Leigh (B), about 700 scheduled ; Middleton (B), representations made in regard to 57 houses ; Newton-in-Makerfield, clearance orders applied for ; Preesall, two clearance orders and one compulsory purchase order in hand ; Radcliffe, isolated groups reported ; Ulverston, slum clearance in progress ; Walton-le-Dale, two areas reported ; Whitefield, two areas scheduled ; Garstang (R), 30 houses to be demolished. Internal water supply is stated to be inadequate in certain cases in 23 districts and sanitary accommodation is said to be unsatisfactory in 19 districts.

5.—UNHEALTHY AREAS.—A few observations under this head include :—Atherton, orders confirmed by Ministry for 3 areas ; Barrowford, order made for one area ; Billinge and Winstanley, 3 areas in Chapel End ; Eccles (B), all unhealthy areas will be demolished in 1934 ; Farnworth, orders confirmed for 10 areas, further representations made relating to 9 areas ; Haslingden (B), 10 areas are being dealt with ; Irlam, one area has been dealt with ; Lancaster (B), about 400 houses in unhealthy areas and elsewhere, representations made in respect of 131 individual unfit houses and 4 clearance areas comprising 127 houses ; Leigh (B), representations to be made in connection with 63 areas ; Morecambe (B), two representations made ; Orrell, one area of 24 houses suggested for clearance and 2 areas for improvement ; Padiham, Clay Bank area to be demolished ; Prestwich, houses in Perkin's Yard demolished and others are in process of demolition ; Ramsbottom, several areas under survey ; Swinton and Pendlebury, representations made in respect of 13 areas comprising 116 houses ; Westhoughton, 6 representations made ; Widnes (B), representations made relating to an area on Waterloo Road East, comprising 104 houses ; Wigan (R), action to be taken with regard to 4 areas.

The following are the comments of the local Medical Officers of Health :—

Atherton.—There exists a considerable shortage of houses and this statement is supported by the fact that there are still 477 applicants for houses on the waiting list. The houses now in course of erection by private enterprise will be totally inadequate to meet the demands.

Clitheroe (B).—There are still 104 houses of the back-to-back type where there is not separate sanitary accommodation.

Colne (B).—In the Borough there still exist 665 back-to-back and 504 single type houses. As long as rows of back-to-back houses exist, deficient in light and ventilation, aggravated by narrow streets, the absence of gardens or back yards, unventilated food stores, and sanitary conveniences a distance away from the houses, one cannot describe the general standard of housing as satisfactory. There are still areas in Colne which require to be dealt with as clearance or improvement areas.

Failsworth.—At many of the poorer class of houses the defects are many, due to lack of attention in initial stages by owner and also occupier. These assume alarming proportions to an owner when a thorough house-to-house inspection is made of the whole block, and a notice for the whole of the defects served.

Dalton-in-Furness.—The district known as Gibraltar, consisting of twelve dwellings, had been represented for clearance and demolition, and in September a Ministry Inspector held an Inquiry and received evidence, the ultimate result being that after prolonged correspondence the houses were to be closed when accommodation had been provided for the displaced population, but no demolition order was made. The Medical Officer doubts the wisdom of this ; he says whilst one would not want to put to any extra expense owners deprived of their property, still it is very doubtful whether an area of empty derelict houses may not become an intolerable eyesore, and one result of the unwillingness of the Ministry to declare the area in question a " Clearance Area " is that the Clerk has decided to advise, in future, that property reported as " being unfit for habitation " be dealt with under section 19 of the 1930 Act.

Farnworth.—The causes of overcrowding are, in order of frequency : (1) large families in houses which have become too small for their needs ; (2) children marrying and remaining with their parents ; (3) keeping of lodgers.

Haslingden (B).—There still remain some 600 houses which require treatment of one kind or another. Some are bad and will require to be closed, others may be included in improvement schemes. Some may be demolished in small Clearance Areas.

Haydock.—The supply of workmen's cottages is inadequate for the needs of the district, but the Council is endeavouring to meet these requirements. During the year, 20 houses have been built by them and there are 60 more in course of erection.

Kearsley.—There is a considerable amount of overcrowding, due to (1) large families living in houses which have become too small for their needs ; (2) children marrying and remaining with their parents, and (3) keeping of lodgers.



Lancaster (B).—In October there were 600 unsatisfied applicants on the waiting list from families living in lodgings, few of whom could afford to pay £20 or £25—the deposit asked for by the builders—and representatives of the builders informed the Health Committee that there was no immediate prospect of their building houses for letting. Overcrowding, therefore, will continue unless the Corporation is allowed to build a considerably greater number of houses than the 50 now in hand. There is a tendency also to overcrowding on existing Corporation housing estates owing to the housing shortage. This, together with the discovery of infestation by bugs in a number of municipal houses and the wholesale transference of families from clearance areas in the near future, makes the question of supervision and management one of some urgency.

Litherland.—There is still a great demand for houses of the working class type, and the Medical Officer of Health hopes the Council will find it possible to continue erecting such houses. There is considerable overcrowding in the working class area of the district, which has developed from thirty to thirty-eight houses to the acre.

Nelson (B).—There are 87 houses of the back-to-back type, and in addition a number of old houses scattered throughout the town, but not in any particular area. Houses that are considered to be below a reasonable standard, and back-to-back houses, are to be the subject of special inspection and report. In this respect there are isolated rows of houses that may have to be dealt with as small clearance areas.

Newton-in-Makerfield.—More houses would have been re-conditioned, but many of the owners have not the means, since the depression began, to incur the expense. There are still between 900 and 1,000 applicants on the waiting list, in spite of the large number of houses built by the Council and private builders.

Oswaldtwistle.—There are still in the urban area, tents, vans and similar structures occupied as dwellings; these are unfit for human habitation. The chief difficulty found in remedying unfitness has been the scarcity of money, and in some cases arrangements were made to have repairs done gradually owing to the large sum involved to do the complete work. Legal proceedings were instituted in 7 instances against owners and occupiers of caravans, and Justices' Orders were made securing the discontinuance of the use of same for human habitation within the area of the urban district.

Padilham.—Overcrowding is mainly due to two factors: (1) scarcity of suitable houses; (2) inability of some of the inhabitants to pay the rents of available houses, which is due again to the large amount of unemployment.

Ramsbottom.—The approximate number of back-to-back houses in the urban area is 433.

Rawtenstall (B).—It is estimated that there are 1,986 occupied back-to-back houses and 138 occupied cellar dwellings or basement tenements. Of these 114 are combined living and sleeping rooms.

Skelmersdale.—The standard of the houses is poor generally; dampness is prevalent, and a deplorable number of the houses are still provided with privy middens.

Ulverston.—It is frequently said that people who have lived in slums will make slums out of any houses provided for them. Even if this were true it would be a miserably unsympathetic attitude of mind, but it is not true. Naturally, people who have been compelled to accept foul living conditions cannot be expected to change their habits in a moment, but let them have a chance and they will adapt themselves, they will form fresh habits and take a pride in their new homes, besides which we must consider the welfare of the younger generation.

Whitefield.—There are a considerable number of old houses grouped in close and badly arranged areas.

Widnes (B).—The need for additional houses is still great, but the rentals charged for many of the houses built by private enterprise are in excess of the amount the average workman can afford. Therefore, for an industrial community, such as exists in Widnes, the demand for a cheap house cannot be supplied by private enterprise.

Lunesdale (R).—There is still a shortage of housing accommodation in the district for the labouring classes, especially in Caton.

Wigan (R).—Many of the old houses are in poor condition, and the sanitary arrangements in them are, to say the least, primitive. There is a certain amount of overcrowding in the district, caused by large families in small houses and by married children sharing the parents' home.

**The Housing (Rural Workers) Acts, 1926 and 1931.**—The County Council has delegated its powers and duties under the 1926 Act to the following 37 districts :—

**Non-County Boroughs (18) :—**

|            |            |                       |             |
|------------|------------|-----------------------|-------------|
| Aeerington | Darwen     | Leigh                 | Nelson      |
| Bacup      | Eccles     | Lytham St. Anne's     | Rawtenstall |
| Chorley    | Haslingden | Middleton             | Stretford   |
| Clitheroe  | Heywood    | Morecambe and Heysham |             |
| Colne      | Lancaster  | Mossley               |             |

**Urban Districts (17) :—**

|                      |                        |              |
|----------------------|------------------------|--------------|
| Farnworth            | Preesall               | Upholland    |
| Horwich              | Ramsbottom             | Wardle       |
| Litherland           | Rishton                | Westhoughton |
| Littleborough        | Swinton and Pendlebury | Whitworth    |
| Milnrow              | Trawden                | Worsley      |
| Newton-in-Makerfield | Tyldesley              |              |

**Rural Districts (2) :—**

Clitheroe

Whiston

The following table shows the number of applications received up to 30th June, 1934, by the County Council for grants under the Housing (Rural Workers) Act, in respect of the area under their jurisdiction. No applications have been received for loans.

| Purpose for which assistance required.                                        | No. of dwellings in respect of which applications for grants have been— |                         |                          | Assistance promised by the Council. |                            | Assistance given by the Council. |                            | No. of dwellings—               |                                                   |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------|--------------------------|-------------------------------------|----------------------------|----------------------------------|----------------------------|---------------------------------|---------------------------------------------------|
|                                                                               | Made to the Council.                                                    | Refused by the Council. | Withdrawn by applicants. | Total Amount of grants promised     | No. of dwellings concerned | Total Amount of grants paid      | No. of dwellings concerned | On which work has been finished | On which work has been commenced and not finished |
|                                                                               |                                                                         |                         |                          | £                                   |                            | £                                |                            |                                 |                                                   |
| Conversion into dwellings of buildings not previously used as dwellings... .. | 12                                                                      | 3                       | 2                        | 700                                 | 7                          | 700                              | 7                          | 7                               | ...                                               |
| Improvement of existing dwellings ... ..                                      | 18                                                                      | 2                       | 4                        | 1136                                | 12                         | 1036                             | 11                         | 11                              | 1                                                 |
| <b>Total ... ..</b>                                                           | <b>30</b>                                                               | <b>5</b>                | <b>6</b>                 | <b>1836</b>                         | <b>19</b>                  | <b>1736</b>                      | <b>18</b>                  | <b>18</b>                       | <b>1</b>                                          |

On the 22nd May, 1933, the Ministry of Health issued Circular 1335 on "Rural Housing" to County Councils and Rural District Councils. The Minister states that he recognises that the provision of housing accommodation in rural districts, especially for agricultural workers and other workers of low rent-paying capacity, presents special difficulties. The immediate need in most rural districts is for improving the existing housing conditions. The Housing (Rural Workers) Acts, 1926 and 1931, afford a most satisfactory and economical method of providing improved accommodation for agricultural workers. Part IV of the Housing Act, 1930, gives to County Councils a special responsibility in relation to the provision of houses in rural districts, and by Section 34 enables contributions to be made by the County Council towards the cost of the provision of houses by Rural District Councils, and requires a contribution to be made where houses are required for the accommodation of the agricultural population of the district.

During the year 1933 three applications were received by the County Council for financial assistance under this Act. In 2 instances grants of £100 each were made, and 1 was refused as the case did not come within the provisions of the Act.

## INSPECTION AND SUPERVISION OF FOOD.

**Milk Supply.**—The local reports contain many references to the action taken during the year with the object of promoting the cleanliness and safety of the milk supply. From the table on pages 136 to 138, it will be noted that in the County Council area there are 7,755 cowkeepers, and, in addition, 3,876 dairymen or purveyors of milk. The farms number 7,354, and the approximate number of cows is 103,700.

The problem of the milk supply has been subject to the continuous consideration and attention of both the County and the local public health officials. No more urgent problem exists, and it may be said progress has been made during the year under report. By the continued advocacy of a clean milk supply, together with the unremitting attention of the sanitary officials to farm premises, a serious attempt has been made to raise the hygienic standard of milk offered for consumption in the County.

As was indicated in last year's report clean milk can be produced without elaborate or expensive plant, if dairy farmers and their employees are methodical, careful and clean. Elaborate cowsheds and costly dairy premises are not an absolute necessity, but well constructed cowsheds and dairies, with proper means for the washing and sterilisation of utensils and the storage of milk, facilitate the production of a purer article. Clean milk production is however more a matter of method than equipment. There need be no unreasonable or burdensome additions to cost. Milk of a



high standard of bacteriological purity can be put on the market, but not without care and attention on the part of the farmer and the farmhands. A good sanitary environment, with regular grooming and cleansing of the cattle are necessary, and should be insisted upon by all local authorities. Whilst some producers remain obdurate and unimpressed, it is apparent there is a changing attitude on the part of many milk producers, but there are yet many premises where higher standards of lighting and ventilation, and better means of drainage and cleansing are needed.

It is accepted that a cleaner and safer milk supply is imperative, not only on the grounds of public health, but as a commercial asset, therefore, the public should not tolerate any supply that is not up to a satisfactory standard.

A point which may be mentioned is the matter of hygiene in the home; the householder has a share in the responsibility of keeping the milk supply clean and free from contamination.

Inspections of farm premises by the local officials in 1933 numbered 15,797, and a large number of routine inspections were made by the County Sanitary Officers in co-operation with the local officials. At the time of these inspections 139 samples of milk were taken by the County staff and despatched for examination, 126 for tubercle bacilli (16 found positive) and 13 for bacterial count, etc.

The local reports show that in a number of districts owners voluntarily undertook works of improvement, including reconstruction of cowsheds, extensions, ceilings raised, floors concreted, walls cemented, additional window area, ventilation, drains and water supplies improved. In some instances improvements were carried out under "orders." In Blackburn (R) £1,200 was spent in such general improvements, Lunesdale (R) £3,000, Westhoughton £1,650, Ramsbottom £1,200, Rishton £1,000, Burnley (R) £800, Darwen (B) £710, Worsley £500, Whitworth £460, etc.

The following comments are extracted from the local reports.

Ashton-under-Lyne (B).—The time has arrived when all milk sold should at least reach the standard laid down for "Grade A." This standard is not an impossible one, and with proper methods is easily attainable by the ordinary producer.

Bacup (B).—Special attention has been given to the cleansing and grooming of cows. More overalls are being provided for the use of milkers, and greater care is being taken during the processes of milking so as to produce a clean milk.

Billinge and Winstanley.—The premises generally are satisfactory, but there is still room for improvement in some instances in the methods of production and distribution. The aim should be rather to prevent contamination than subsequently to introduce measures for its eradication, and this end is to be obtained by maintaining a healthy herd in which there is no question of the taint of tuberculosis, by housing them in a proper manner, and by practising scrupulous cleanliness in all duties pertaining to the milking and distribution.

Dalton-in-Furness.—There is a gradual, if slow improvement in the method of milk production. Old prejudices are hard to kill, but there is hope that soon many of them will be decently buried.

Darwen (B).—The extensive structural improvements effected in the cowsheds have resulted in a general improvement in the condition of the sheds in regard to cleanliness. The work that has been carried out is estimated to have cost about £710.

Irlam.—Approximately 94 per cent. of the local milk supply is brought in by road or rail, only 6 per cent. being produced locally, and the proportion of milk sold loose is 38 per cent. and in bottles 62 per cent.

Lytham St. Anne's (B).—Milk cows are inspected quarterly by the Veterinary Inspector. Quarterly visits have been made by him to all farms, the total number of such visits being 124 and the average number of cattle examined at each inspection 531. Six cattle were reported to the Authorities to be dealt with under the Tuberculosis Order.

Nelson (B).—There is still room for improvement in the cleanliness of the cows and byres, a few of the latter requiring repairing. The health of the cattle has been good and questionable animals removed. Some of the farmers need reminding that we are living in the twentieth century and they should adopt up-to-date methods to give them control of the local milk market instead of milk having to be imported from outside sources.

Orrell.—It is again necessary to draw attention to the necessity of greater cleanliness in the toilet of the cattle, and their immediate surroundings, and a more general use of clean overalls while milking, in order to maintain a clean milk supply.

Rawtenstall (B).—Some improvement in the methods of producing and handling milk has been made, but this is not taking place as quickly as is desirable. The chief fault at present is the feeding of cows during the time of milking.

Tyldesley.—The appointment of a Veterinary Officer to assist the Medical Officer of Health has proved a valuable asset in the detection of tubercular animals.

Ulverston.—Milk sellers are showing increasing anxiety to produce a pure, clean milk, and more attention to detail is shown than was the case a few years ago.

Whitefield.—It is essential that routine sampling should be carried out on even a larger scale than has hitherto been done, and the milk of each producer should be sampled at least twice a year. The first thought of the producer should be given to the installation of an efficient steam sterilising plant, as such a plant is one of the main essentials, especially where milking machines are in vogue.

Whitworth.—During the year, 128 inspections have been made. Owners have again been seen personally regarding alterations to existing cowsheds. The total cost of these alterations works out at £460.

Burnley (R).—87·0 per cent. of the samples examined in Burnley (C.B.) of milk produced in the Rural district were of "Grade A" quality, as compared with 82·0 per cent. in 1932, 80·5 per cent. in 1931, 85 per cent. in 1930, 80 per cent. in 1929 and 86 per cent. in 1928. Clean milk can easily be produced, and there is no reason why all milk should not be of "Grade A" quality.

Limehurst (R).—A very marked improvement in the cleanliness and grooming of the cows has been observed at the premises visited this year.

Ulverston (R).—There is an increasing desire on the part of milk sellers to ensure to the public a pure and wholesome supply of this most important commodity. Old prejudices are hard to kill, and even now there are farmers who still believe that their cows will give better and purer milk if they are kept in a stuffy, ill-ventilated atmosphere.

MILK AND DAIRIES (CONSOLIDATION) ACT, 1915.—During the year under report 177 notifications that tubercle bacilli had been found or were suspected in milk supplies were received by the County Public Health Department from local Medical Officers of Health under Section 4 of the Milk and Dairies (Consolidation) Act, 1915. In each case one of the 30 Veterinary Surgeons retained by the County Council visited the farm and examined the cattle, and at the same time a County Sanitary Officer inspected the farm premises.

The number of cattle inspected on the first visits was 4,392; 69 re-visits were necessary owing to tubercle bacilli being found in samples of milk from groups of cows. The Veterinary Officers immediately gave notice respecting 12 animals showing definite clinical signs of tuberculosis and these were slaughtered under the Tuberculosis Order.

The following statement is an analysis of the sampling of milk carried out by the County Council in connection with the notifications received under Section 4 by the Public Health Department:—

On the first visits 876 samples were taken:—

402 were unmixed from individual cows—89 being reported positive, 313 negative.

474 were mixed from groups of cows—62 positive, 412 negative.

Second visits made in respect of the 62 group samples found to contain tubercle bacilli and 247 further samples were taken as follows:—

195 unmixed of which 43 were positive and 152 negative.

52 mixed samples—7 positive, 45 negative.

Third visits were necessary for further examination of the 7 positive groups found on the second visit, and on these occasions 22 samples were obtained:—

18 unmixed—2 positive, 16 negative.

4 group samples all negative.

The cow concerned in any unmixed sample of milk found to contain tubercle bacilli was immediately reported to the Agricultural Department for action under the Tuberculosis Order, 1925.

In a number of instances the affected animals had been sold before the result of the examination of the milk samples had been received, and in these cases steps were taken to trace the cows and, if they had not been slaughtered, the facts were reported to the Medical Officer of Health of the area.

The County Sanitary Officers paid 808 visits to dairy premises during the year under report.

Under Section 8(3) of the 1915 Act, the County Authority was requested in seven instances by the officials of County Boroughs to obtain "appeal to cow" samples at farms in the Administrative County.

Veterinary Inspection.—In addition to the above many of the local authorities have in operation arrangements for the veterinary inspection of cattle. Nineteen districts report that in the year under report 8,237 cows were examined.

The officials of 50 local authorities submitted 1,057 samples of milk for bacteriological examination, 103 of which were positive.

The County Agricultural Committee's reports show that during the year 1933 the number of cases reported under the Tuberculosis (Animals) Order, 1925, was 759, and the number of animals slaughtered by Order 689. In the year 1932, these totals were 643 and 585 respectively.

The steps taken by the County Council as the Authority under the Food and Drugs (Adulteration) Act in regard to the adulteration of milk are referred to on pages 144 to 158; 2,984 samples of milk were analysed in 1933. The action taken under the Milk (Special Designations) Order, 1923, is set out on pages 139 to 144.



DAIRIES, COWSHEDS AND MILKSHOPS.—The number of cowkeepers and dairymen or purveyors of milk in each district is shown in the following table:—

DAIRIES, COWSHEDS AND MILKSHOPS.

| URBAN DISTRICTS.               | COWKEEPERS. |                              | DAIRYMEN<br>OR<br>PURVEYORS<br>OF MILK<br>(other than cowkeepers). | Arrangements for<br>Veterinary Inspection<br>of Dairy Cows. |
|--------------------------------|-------------|------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------|
|                                | Number.     | Number<br>of<br>Inspections. | Number.                                                            |                                                             |
| Abram ... ..                   | 16          | 87                           | 1                                                                  | ...                                                         |
| Acerington (B) ... ..          | 56          | 123                          | 65                                                                 | Yes.                                                        |
| Adlington ... ..               | 16          | 34                           | 25                                                                 | ...                                                         |
| Ashton-in-Makerfield ... ..    | 39          | 93                           | 7                                                                  | When required.                                              |
| Ashton-under-Lyne (B) ... ..   | 5           | 20                           | 245                                                                | When required.                                              |
| Aspull ... ..                  | 14          | 60                           | 23                                                                 | When required.                                              |
| Atherton ... ..                | 20          | 62                           | 48                                                                 | Yes.                                                        |
| Audenshaw ... ..               | 8           | 39                           | 38                                                                 | ...                                                         |
| Bacup (B) ... ..               | 88          | 121                          | 38                                                                 | When required.                                              |
| Barrowford ... ..              | 25          | 40                           | 9                                                                  | ...                                                         |
| Billinge and Winstanley ... .. | 37          | 72                           | 10                                                                 | ...                                                         |
| Blackrod ... ..                | 33          | 67                           | ...                                                                | ...                                                         |
| Brierfield ... ..              | 7           | 25                           | 51                                                                 | ...                                                         |
| Carnforth ... ..               | 16          | 32                           | 17                                                                 | ...                                                         |
| Chadderton ... ..              | 32          | 25                           | 116                                                                | When required.                                              |
| Chorley (B) ... ..             | 26          | 59                           | 126                                                                | When required.                                              |
| Church ... ..                  | 4           | 12                           | 20                                                                 | ...                                                         |
| Clayton-le-Moors ... ..        | 9           | 29                           | 35                                                                 | ...                                                         |
| Clitheroe (B) ... ..           | 28          | ...                          | 11                                                                 | ...                                                         |
| Colne (B) ... ..               | 73          | 209                          | 72                                                                 | ...                                                         |
| Crompton ... ..                | 40          | 70                           | 30                                                                 | ...                                                         |
| Croston ... ..                 | 22          | 46                           | ...                                                                | ...                                                         |
| Dalton-in-Furness ... ..       | 54          | 413                          | 28                                                                 | When required.                                              |
| Darwen (B) ... ..              | 72          | 131                          | 196                                                                | When required.                                              |
| Denton ... ..                  | 26          | 103                          | 93                                                                 | ...                                                         |
| Droylsden ... ..               | 12          | 105                          | 55                                                                 | ...                                                         |
| Eccles (B) ... ..              | 7           | 47                           | 170                                                                | Yes.                                                        |
| Failsworth ... ..              | 11          | 143                          | 56                                                                 | ...                                                         |
| Farnworth ... ..               | 12          | 65                           | 156                                                                | Yes.                                                        |
| Fleetwood (B) ... ..           | 8           | 56                           | 98                                                                 | ...                                                         |
| Formby ... ..                  | 21          | 82                           | 5                                                                  | ...                                                         |
| Fulwood ... ..                 | 34          | 28                           | 20                                                                 | When required.                                              |
| Golborne ... ..                | 42          | 87                           | 1                                                                  | ...                                                         |
| Grange-over-Sands ... ..       | 10          | 40                           | 1                                                                  | When required.                                              |
| Great Crosby ... ..            | 18          | 101                          | 10                                                                 | ...                                                         |
| Great Harwood ... ..           | 21          | 51                           | 5                                                                  | ...                                                         |
| Haslingden (B) ... ..          | 101         | 103                          | 41                                                                 | When required.                                              |
| Haydock ... ..                 | 15          | 113                          | 3                                                                  | ...                                                         |
| Heywood (B) ... ..             | 46          | 147                          | 27                                                                 | When required.                                              |
| Hindley ... ..                 | 25          | 125                          | 4                                                                  | When required.                                              |

DAIRIES, COWSHEDS AND MILKSHOPS—*continued.*

| URBAN DISTRICTS.             | COWKEEPERS. |                              | DAIRYMEN<br>OR<br>PURVEYORS<br>OF MILK<br>(other than cowkeepers). | Arrangements for<br>Veterinary Inspection<br>of Dairy Cows. |
|------------------------------|-------------|------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------|
|                              | Number.     | Number<br>of<br>Inspections. | Number.                                                            |                                                             |
| Horwich ... ..               | 30          | 145                          | 38                                                                 | Yes.                                                        |
| Huyton-with-Roby ... ..      | 15          | 61                           | 2                                                                  | ...                                                         |
| Ince-in-Makerfield ... ..    | 2           | 24                           | 18                                                                 | ...                                                         |
| Irlam ... ..                 | 4           | 20                           | 28                                                                 | ...                                                         |
| Kearsley ... ..              | 12          | 18                           | 35                                                                 | Yes.                                                        |
| Kirkham ... ..               | 10          | 257                          | 4                                                                  | ...                                                         |
| Lancaster (B) ... ..         | 16          | 101                          | 73                                                                 | ...                                                         |
| Lees ... ..                  | 2           | 21                           | 36                                                                 | ...                                                         |
| Leigh (B) ... ..             | 47          | 223                          | 108                                                                | Yes.                                                        |
| Leyland ... ..               | 54          | 109                          | 4                                                                  | ...                                                         |
| Litherland ... ..            | 6           | 48                           | 12                                                                 | When required.                                              |
| Littleborough ... ..         | 70          | 154                          | 1                                                                  | ...                                                         |
| Little Lever ... ..          | 11          | 39                           | 5                                                                  | ...                                                         |
| Longridge ... ..             | 32          | 129                          | 3                                                                  | ...                                                         |
| Lytham Saint Anne's (B) ...  | 32          | 139                          | 40                                                                 | Yes.                                                        |
| Middleton (B) ... ..         | 74          | 218                          | 64                                                                 | When required.                                              |
| Milnrow ... ..               | 84          | ...                          | 1                                                                  | ...                                                         |
| Morecambe and Heysham (B)... | 16          | 72                           | 113                                                                | When required.                                              |
| Mossley (B) ... ..           | 17          | 45                           | 21                                                                 | When required.                                              |
| Nelson (B) ... ..            | 32          | 134                          | 21                                                                 | Yes.                                                        |
| Newton-in-Makerfield ... ..  | 18          | 36                           | 45                                                                 | ...                                                         |
| Ormskirk... ..               | 25          | 75                           | 11                                                                 | ...                                                         |
| Orrell ... ..                | 18          | 180                          | 26                                                                 | ...                                                         |
| Oswaldtwistle ... ..         | 67          | 94                           | 35                                                                 | ...                                                         |
| Padiham ... ..               | 12          | 29                           | 43                                                                 | When required.                                              |
| Poulton-le-Fylde ... ..      | 11          | 42                           | 11                                                                 | ...                                                         |
| Preesall ... ..              | 42          | 28                           | ...                                                                | ...                                                         |
| Prescot ... ..               | 6           | 118                          | 8                                                                  | ...                                                         |
| Prestwich ... ..             | 11          | 90                           | 74                                                                 | ...                                                         |
| Radcliffe ... ..             | 38          | 58                           | 62                                                                 | ...                                                         |
| Rainford ... ..              | 28          | 28                           | 4                                                                  | ...                                                         |
| Ramsbottom ... ..            | 78          | 106                          | 15                                                                 | ...                                                         |
| Rawtenstall (B)... ..        | 123         | 93                           | 39                                                                 | ...                                                         |
| Rishton ... ..               | 27          | 210                          | 35                                                                 | ...                                                         |
| Royton ... ..                | 23          | 46                           | 33                                                                 | ...                                                         |
| Skelmersdale ... ..          | 11          | 32                           | 16                                                                 | ...                                                         |
| Standish-with-Langtree ...   | 30          | 210                          | 5                                                                  | ...                                                         |
| Stretford (B) ... ..         | 6           | 19                           | 227                                                                | When required.                                              |
| Swinton and Pendlebury ...   | 16          | 81                           | 60                                                                 | Yes.                                                        |
| Thornton Cleveleys ... ..    | 32          | 243                          | 17                                                                 | When required.                                              |
| Tottington ... ..            | 46          | 102                          | 8                                                                  | ...                                                         |



DAIRIES, COWSHEDS AND MILKSHOPS—*continued.*

| URBAN DISTRICTS.                | COWKEEPERS. |                              | DAIRYMEN<br>OR<br>PURVEYORS<br>OF MILK<br>(other than cowkeepers). | Arrangements for<br>Veterinary Inspection<br>of Dairy Cows. |
|---------------------------------|-------------|------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------|
|                                 | Number.     | Number<br>of<br>Inspections. | Number.                                                            |                                                             |
| Trawden ... ..                  | 80          | 80                           | ...                                                                | ...                                                         |
| Turton ... ..                   | 213         | 424                          | 4                                                                  | ...                                                         |
| Tyldesley... ..                 | 36          | 112                          | 12                                                                 | Yes.                                                        |
| Ulverston ... ..                | 27          | 315                          | 17                                                                 | ...                                                         |
| Upholland ... ..                | 37          | 118                          | 6                                                                  | ...                                                         |
| Urmston ... ..                  | 40          | 5                            | 33                                                                 | ...                                                         |
| Walton-le-Dale ... ..           | 61          | 110                          | 27                                                                 | ...                                                         |
| Wardle ... ..                   | 46          | 51                           | ...                                                                | ...                                                         |
| Waterloo-with-Seaforth ...      | 18          | 61                           | 40                                                                 | ...                                                         |
| Westhoughton ... ..             | 82          | 382                          | 33                                                                 | ...                                                         |
| Whitefield ... ..               | 18          | 141                          | 55                                                                 | ...                                                         |
| Whitworth ... ..                | 35          | 122                          | ...                                                                | When required.                                              |
| Widnes (B) ... ..               | 29          | 77                           | 88                                                                 | Yes.                                                        |
| Withnell ... ..                 | 32          | 60                           | ...                                                                | ...                                                         |
| Worsley ... ..                  | 33          | 132                          | 18                                                                 | When required.                                              |
| Total Urban Districts ... ..    | 3170        | 9332                         | 3690                                                               |                                                             |
| RURAL DISTRICTS.                |             |                              |                                                                    |                                                             |
| Blackburn ... ..                | 351         | 1091                         | ...                                                                | ...                                                         |
| Burnley ... ..                  | 390         | 381                          | 1                                                                  | ...                                                         |
| Chorley ... ..                  | 317         | 475                          | 10                                                                 | ...                                                         |
| Clitheroe ... ..                | 309         | 276                          | 1                                                                  | ...                                                         |
| Fylde ... ..                    | 424         | 368                          | 46                                                                 | ...                                                         |
| Garstang ... ..                 | 618         | 354                          | 1                                                                  | ...                                                         |
| Lancaster ... ..                | 332         | 494                          | 2                                                                  | ...                                                         |
| Limehurst ... ..                | 77          | 32                           | 25                                                                 | ...                                                         |
| Lunesdale ... ..                | 411         | 411                          | 2                                                                  | ...                                                         |
| Preston ... ..                  | 704         | 630                          | 34                                                                 | ...                                                         |
| Ulverston ... ..                | 212         | 832                          | 2                                                                  | When required.                                              |
| Warrington ... ..               | 87          | 168                          | 24                                                                 | ...                                                         |
| West Lancashire ... ..          | 93          | 273                          | 26                                                                 | ...                                                         |
| Whiston ... ..                  | 123         | 280                          | 6                                                                  | When required.                                              |
| Wigan ... ..                    | 137         | 400                          | 6                                                                  | ...                                                         |
| Total Rural Districts ... ..    | 4585        | 6465                         | 186                                                                |                                                             |
| Total Administrative County ... | 7755        | 15797                        | 3876                                                               |                                                             |

THE MILK (SPECIAL DESIGNATIONS) ORDER, 1923.—Under this Order the County Council in the year 1933 issued 53 licences for the production and distribution of Grade A milk, an increase of 3 on the previous year.

The table following shows the number of licences issued under the Order.

### THE MILK (SPECIAL DESIGNATIONS) ORDER, 1923.

#### LICENCES ISSUED, 1933.

| URBAN DISTRICTS.                 | Licences issued by Ministry of Health. | Licences issued by County Council. | Licences issued by Local Authorities.           |                                     |              |                 |                                                          |                      |                      |
|----------------------------------|----------------------------------------|------------------------------------|-------------------------------------------------|-------------------------------------|--------------|-----------------|----------------------------------------------------------|----------------------|----------------------|
|                                  |                                        |                                    | No. of Dealers' Licences issued in respect of:— |                                     |              |                 | No. of Licences issued in respect of "Pasteurised" Milk. |                      |                      |
|                                  |                                        |                                    | "Certified" Milk.                               | "Grade A (Tuberculin Tested)" Milk. |              | "Grade A" Milk. |                                                          | Pasteurising Plants. | Retail Distributors. |
|                                  |                                        |                                    |                                                 | Bottling                            | Distribution | Bottling        | Distribution                                             |                      |                      |
| Abram ... ..                     | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 2                    |
| Accrington (B) ... ..            | ...                                    | ..                                 | 1                                               | ...                                 | ...          | ...             | 1                                                        | 1                    | 48                   |
| Ashton-in-Makerfield ... ..      | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | 1                    | 2                    |
| Ashton-under-Lyne (B) ... ..     | ...                                    | ...                                | ...                                             | ...                                 | 1            | ...             | ...                                                      | 2                    | 3                    |
| Aspull ... ..                    | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 3                    |
| Atherton... ..                   | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 2                    |
| Audenshaw ... ..                 | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |
| Barrowford ... ..                | ...                                    | 1                                  | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | ...                  |
| Billinge and Winstanley ... ..   | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |
| Brierfield ... ..                | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |
| Chadderton ... ..                | ...                                    | ...                                | 2                                               | ...                                 | ...          | ...             | ...                                                      | ...                  | 13                   |
| Chorley (B) ... ..               | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 5                                                        | 1                    | 1                    |
| Clayton-le-Moors ... ..          | ...                                    | 1                                  | ...                                             | ...                                 | ...          | ...             | 1                                                        | ...                  | 8                    |
| Clitheroe (B) ... ..             | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 1                                                        | ...                  | 1                    |
| Colne (B) ... ..                 | ...                                    | ...                                | 1                                               | ...                                 | 1            | ...             | 1                                                        | ...                  | ...                  |
| Darwen (B) ... ..                | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 2                                                        | ...                  | 28                   |
| Denton ... ..                    | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 3                    |
| Failsworth ... ..                | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | 1                    | 9                    |
| Farnworth ... ..                 | ...                                    | ...                                | ...                                             | ...                                 | ...          | 2               | 2                                                        | 1                    | 4                    |
| Fleetwood (B) ... ..             | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 1                                                        | ...                  | 9                    |
| Formby ... ..                    | ...                                    | ...                                | 1                                               | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |
| Fulwood... ..                    | ...                                    | 1                                  | ...                                             | ...                                 | ...          | 1               | 1                                                        | ...                  | ...                  |
| Golborne ... ..                  | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |
| Grange-over-Sands ... ..         | ...                                    | ...                                | 1                                               | ...                                 | ...          | ...             | ...                                                      | ...                  | ...                  |
| Great Crosby ... ..              | ...                                    | ...                                | 2                                               | ...                                 | 2            | ...             | ...                                                      | ...                  | ...                  |
| Great Harwood ... ..             | ...                                    | 1                                  | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | ...                  |
| Haslingden (B) ... ..            | 1                                      | ...                                | 1                                               | ...                                 | ...          | ...             | 1                                                        | ...                  | ...                  |
| Haydock ... ..                   | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |
| Hindley ... ..                   | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 20                   |
| Huyton-with-Roby ... ..          | 1                                      | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | ...                  |
| Ince-in-Makerfield ... ..        | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 16                   |
| Irlam ... ..                     | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 1                                                        | ...                  | ...                  |
| Kirkham ... ..                   | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 4                                                        | ...                  | ...                  |
| Lancaster (B) ... ..             | ...                                    | ...                                | 1                                               | ...                                 | ...          | ...             | 4                                                        | ...                  | ...                  |
| Leigh (B) ... ..                 | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 11                                                       | ...                  | 5                    |
| Leyland ... ..                   | ...                                    | 1                                  | ...                                             | ...                                 | ...          | ...             | 2                                                        | ...                  | 1                    |
| Litherland ... ..                | ...                                    | ...                                | ...                                             | ...                                 | 1            | ...             | 2                                                        | ...                  | 1                    |
| Longridge ... ..                 | ...                                    | 3                                  | ...                                             | 1                                   | ...          | 1               | ...                                                      | ...                  | ...                  |
| Lytham Saint Anne's (B) ... ..   | 1                                      | ...                                | 8                                               | ...                                 | ...          | ...             | 5                                                        | ...                  | ...                  |
| Middleton (B) ... ..             | ...                                    | ...                                | 1                                               | 1                                   | 1            | 1               | 1                                                        | ...                  | 2                    |
| Morecambe and Heysham (B) ... .. | ...                                    | 1                                  | 4                                               | 1                                   | 2            | 1               | 1                                                        | ...                  | ...                  |
| Nelson (B) ... ..                | ...                                    | ...                                | 1                                               | 1                                   | 1            | 1               | 7                                                        | ...                  | ...                  |
| Newton-in Makerfield ... ..      | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 2                    |
| *Norden ... ..                   | ...                                    | ...                                | 1                                               | ...                                 | ...          | ...             | ...                                                      | ...                  | ...                  |
| Orrell ... ..                    | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 6                    |
| Oswaldtwistle ... ..             | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 1                                                        | 1                    | 12                   |
| Poulton-le-Fylde ... ..          | ...                                    | 2                                  | ...                                             | ...                                 | ...          | ...             | 2                                                        | ...                  | ...                  |
| Prestwich ... ..                 | ...                                    | ...                                | 2                                               | ...                                 | ...          | ...             | ...                                                      | 1                    | 3                    |
| Radcliffe... ..                  | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | 1                                                        | ...                  | 1                    |
| Rainford... ..                   | ...                                    | ...                                | ...                                             | ...                                 | ...          | ...             | ...                                                      | ...                  | 1                    |

\* District abolished 1st October, 1933.



## MILK LICENCES—continued.

| URBAN DISTRICTS.        | Licences issued by Ministry of Health. | Licences issued by County Council. | Licences issued by Local Authorities.           |                 |                   |                                     |     |                 |                                                         |                      |
|-------------------------|----------------------------------------|------------------------------------|-------------------------------------------------|-----------------|-------------------|-------------------------------------|-----|-----------------|---------------------------------------------------------|----------------------|
|                         |                                        |                                    | No. of Dealers' Licences issued in respect of:— |                 |                   |                                     |     |                 | No. of Licences issued in respect of "Pasteurised" Milk |                      |
|                         |                                        |                                    | "Certified" Milk.                               | "Grade A" Milk. | "Certified" Milk. | "Grade A (Tuberculin Tested)" Milk. |     | "Grade A" Milk. |                                                         | Pasteurising Plants. |
| Bottling                | Distribution                           | Bottling                           |                                                 |                 |                   | Distribution                        |     |                 |                                                         |                      |
| Ramsbottom ... ..       | ...                                    | ...                                | 1                                               | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Rawtenstall (B)... ..   | ...                                    | ...                                | 1                                               | ...             | ...               | ...                                 | ... | ...             | ...                                                     | 3                    |
| Rishton ... ..          | ...                                    | ...                                | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | 5                    |
| Standish-with-Langtree  | ...                                    | ...                                | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | 3                    |
| Stretford (B) ... ..    | ...                                    | ...                                | 5                                               | 1               | 1                 | 2                                   | 7   | ...             | ...                                                     | 6                    |
| Swinton and Pendlebury  | ...                                    | ...                                | 3                                               | ...             | ...               | ...                                 | 2   | ...             | ...                                                     | 3                    |
| Thornton Cleveleys ...  | ...                                    | ...                                | 1                                               | ...             | ...               | ...                                 | 7   | ...             | ...                                                     | 4                    |
| Tyldesley ... ..        | ...                                    | ...                                | ...                                             | ...             | ...               | ...                                 | 2   | ...             | ...                                                     | 3                    |
| Ulverston ... ..        | ...                                    | 1                                  | ...                                             | ...             | ...               | 1                                   | ... | ...             | ...                                                     | ...                  |
| Urmston... ..           | ...                                    | ...                                | 2                                               | ...             | ...               | 1                                   | 1   | ...             | ...                                                     | 1                    |
| Walton-le-Dale ... ..   | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | 3   | ...             | ...                                                     | ...                  |
| Waterloo-with-Seaforth  | ...                                    | ...                                | 1                                               | ...             | ...               | ...                                 | 2   | ...             | ...                                                     | ...                  |
| Whitefield ... ..       | ...                                    | ...                                | 1                                               | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Widnes (B) ... ..       | ...                                    | ...                                | ...                                             | ...             | 1                 | ...                                 | ... | ...             | ...                                                     | ...                  |
| Withnell ... ..         | 1                                      | ...                                | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Worsley ... ..          | ...                                    | ...                                | ...                                             | ...             | ...               | ...                                 | 1   | ...             | ...                                                     | 4                    |
| RURAL DISTRICTS.        |                                        |                                    |                                                 |                 |                   |                                     |     |                 |                                                         |                      |
| *Barton-upon-Irwell ... | ...                                    | ...                                | 2                                               | ...             | ...               | 1                                   | 1   | ...             | ...                                                     | 2                    |
| Blackburn ... ..        | ...                                    | 7                                  | 2                                               | ...             | ...               | ...                                 | 2   | ...             | ...                                                     | 2                    |
| Burnley ... ..          | ...                                    | 4                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| †Bury ... ..            | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | 1                    |
| Chorley ... ..          | ...                                    | 7                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | 2                    |
| Clitheroe ... ..        | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | 1               | ...                                                     | ...                  |
| Fylde ... ..            | ...                                    | 8                                  | ...                                             | ...             | ...               | 1                                   | 2   | ...             | ...                                                     | ...                  |
| Garstang... ..          | ...                                    | 2                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Lancaster ... ..        | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| ‡Leigh ... ..           | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Lunesdale ... ..        | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Preston ... ..          | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Ulverston ... ..        | ...                                    | ...                                | ...                                             | 2               | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Warrington ... ..       | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| West Lancashire ... ..  | ...                                    | 3                                  | ...                                             | ...             | ...               | 3                                   | 3   | ...             | ...                                                     | 2                    |
| Whiston ... ..          | 1                                      | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | 2                    |
| Wigan ... ..            | ...                                    | 1                                  | ...                                             | ...             | ...               | ...                                 | ... | ...             | ...                                                     | ...                  |
| Total ...               | 5                                      | 53                                 | 46                                              | 7               | 11                | 16                                  | 91  | 10              | 255                                                     |                      |

District abolished.—\* 1st April, 1933; † part 1st April and part 1st October, 1933; ‡ 1st October, 1933.

**EXAMINATION OF "GRADE A" MILK SAMPLES.**—The following statement summarises the results of the examinations of milk samples taken by the County staff during the year from the farmers licensed in 1933 for the production of "Grade A" milk:—

| Licence No. | *Cultivation.<br>Bacteria growing on standard agar at 37° C. in 48 hours.<br>per c.c. | *B. Coli.<br>Present = +<br>Absent = - |             |              | Dirt Estimation.<br>Parts per 100,000. |                      |                |
|-------------|---------------------------------------------------------------------------------------|----------------------------------------|-------------|--------------|----------------------------------------|----------------------|----------------|
|             |                                                                                       | 1.0<br>c.c.                            | 0.1<br>c.c. | 0.01<br>c.c. | Cells and Cellular Products            | Extraneous Materials | Total Sediment |
|             |                                                                                       |                                        |             |              |                                        |                      |                |
| 1.          | 80                                                                                    | —                                      | —           | —            |                                        |                      |                |
|             | 1,000                                                                                 | +                                      | —           | —            |                                        |                      |                |
| 2.          | 700                                                                                   | +                                      | —           | —            |                                        |                      |                |
|             | 3,490                                                                                 | +                                      | —           | —            |                                        |                      |                |
|             | 110                                                                                   | —                                      | —           | —            |                                        |                      |                |
|             | 16                                                                                    | —                                      | —           | —            |                                        |                      |                |
|             | 1,000                                                                                 | +                                      | —           | —            |                                        |                      |                |

\* Standard:—Not more than 200,000 bacteria per c.c. and no B. Coli in 0.01 of a c.c.

"GRADE A" MILK—*continued*.

| Licence No. | *Cultivation.<br>Bacteria growing<br>on standard agar at<br>37° C. in 48 hours.<br>per c.c. | *B. Coli.<br>Present = +<br>Absent = - |             |              | Dirt Estimation.<br>Parts per 100,000. |                              |                   |
|-------------|---------------------------------------------------------------------------------------------|----------------------------------------|-------------|--------------|----------------------------------------|------------------------------|-------------------|
|             |                                                                                             | 1·0<br>c.c.                            | 0·1<br>c.c. | 0·01<br>c.c. | Cells<br>and<br>Cellular<br>Products   | Extran-<br>eous<br>Materials | Total<br>Sediment |
| 3.          | 70                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 340                                                                                         | —                                      | —           | —            |                                        |                              |                   |
| 4.          | 770                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 500                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 96                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 160                                                                                         | —                                      | —           | —            |                                        |                              |                   |
| 5.          | 70                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 1,000                                                                                       | +                                      | —           | —            |                                        |                              |                   |
| 6.          | 15,900                                                                                      | +                                      | +           | —            |                                        |                              |                   |
|             | 860                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 2,190                                                                                       | +                                      | —           | —            |                                        |                              |                   |
|             | 1,900                                                                                       | +                                      | —           | —            |                                        |                              |                   |
| 7.          | 450                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 2,000                                                                                       | +                                      | —           | —            |                                        |                              |                   |
| 8.          | 60                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 600                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 14,100                                                                                      | +                                      | +           | —            |                                        |                              |                   |
| 9.          | 380                                                                                         | —                                      | —           | —            | 44·4                                   | Trace                        | 44·4              |
|             | 503                                                                                         | —                                      | —           | —            | 3                                      | "                            | 3                 |
|             | 8,500                                                                                       | —                                      | —           | —            | 8                                      | "                            | 8                 |
| 10.         | 1,265                                                                                       | +                                      | —           | —            |                                        |                              |                   |
|             | 3,000                                                                                       | +                                      | +           | —            |                                        |                              |                   |
|             | 15,800                                                                                      | +                                      | +           | —            |                                        |                              |                   |
|             | 360                                                                                         | +                                      | —           | —            |                                        |                              |                   |
| 11.         | 23,800                                                                                      | +                                      | +           | —            |                                        |                              |                   |
|             | 80                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 500                                                                                         | —                                      | —           | —            |                                        |                              |                   |
|             | 260                                                                                         | —                                      | —           | —            |                                        |                              |                   |
| 12.         | 460                                                                                         | —                                      | —           | —            |                                        |                              |                   |
|             | 100                                                                                         | —                                      | —           | —            |                                        |                              |                   |
| 13.         | 17                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 1,470                                                                                       | +                                      | —           | —            |                                        |                              |                   |
| 14.         | 2,160                                                                                       | +                                      | +           | —            |                                        |                              |                   |
|             | 21,150                                                                                      | +                                      | +           | —            |                                        |                              |                   |
| 15.         | 15,400                                                                                      | +                                      | +           | +            |                                        |                              |                   |
|             | 1,160                                                                                       | +                                      | —           | —            |                                        |                              |                   |
| 16.         | 21,400                                                                                      | +                                      | +           | +            |                                        |                              |                   |
|             | 13,800                                                                                      | +                                      | +           | —            |                                        |                              |                   |
|             | 1,200                                                                                       | +                                      | —           | —            |                                        |                              |                   |
| 17.         | 50                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 760                                                                                         | +                                      | —           | —            |                                        |                              |                   |
| 18.         | 540                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 820                                                                                         | +                                      | —           | —            |                                        |                              |                   |
| 19.         | 10                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 20.         | 366                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 830                                                                                         | —                                      | —           | —            |                                        |                              |                   |
|             | 600                                                                                         | +                                      | —           | —            |                                        |                              |                   |
|             | 1,100                                                                                       | —                                      | —           | —            |                                        |                              |                   |

\* Standard :—Not more than 200,000 bacteria per c.c. and no B. Coli in 0·01 of a c.c.



“ GRADE A ” MILK—continued.

| Licence No. | * Cultivation.<br>Bacteria growing<br>on standard agar at<br>37° C. in 48 hours.<br>per c.c. | *B. Coli.<br>Present = +<br>Absent = - |             |              | Dirt Estimation.<br>Parts per 100,000. |                              |                   |
|-------------|----------------------------------------------------------------------------------------------|----------------------------------------|-------------|--------------|----------------------------------------|------------------------------|-------------------|
|             |                                                                                              | 1·0<br>c.c.                            | 0·1<br>c.c. | 0·01<br>c.c. | Cells<br>and<br>Cellular<br>Products   | Extran-<br>eous<br>Materials | Total<br>Sediment |
| 21.         | 920                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 3,500                                                                                        | +                                      | —           | —            |                                        |                              |                   |
| 22.         | 10,000                                                                                       | +                                      | +           | +            |                                        |                              |                   |
|             | 490                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 23.         | 1,200                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 430                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 24.         | 1,250                                                                                        | —                                      | —           | —            | 31·1                                   | Trace                        | 31·1              |
|             | 455,000                                                                                      | +                                      | +           | —            | 12                                     | 2                            | 14                |
|             | 1,223                                                                                        | —                                      | —           | —            | 38                                     | 6                            | 44                |
| 25.         | 20                                                                                           | —                                      | —           | —            |                                        |                              |                   |
|             | 580                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 26.         | 85                                                                                           | —                                      | —           | —            |                                        |                              |                   |
|             | 300                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 27.         | 9,460                                                                                        | +                                      | +           | —            |                                        |                              |                   |
|             | 26,500                                                                                       | +                                      | +           | +            |                                        |                              |                   |
|             | 2,860                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 150                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 28.         | 220                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 40,600                                                                                       | +                                      | +           | +            |                                        |                              |                   |
| 29.         | 1,107                                                                                        | —                                      | —           | —            |                                        |                              |                   |
|             | 7,050                                                                                        | +                                      | +           | +            | 9                                      | Trace                        | 9                 |
|             | 17,266                                                                                       | +                                      | +           | +            | 5                                      | 7                            | 12                |
| 30.         | 6,500                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 2,100                                                                                        | +                                      | —           | —            |                                        |                              |                   |
| 31.         | 13,200                                                                                       | +                                      | —           | —            |                                        |                              |                   |
|             | 1,430                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 6,630                                                                                        | +                                      | +           | —            |                                        |                              |                   |
|             | 250                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 700                                                                                          | +                                      | —           | —            |                                        |                              |                   |
| 32.         | 380                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 17                                                                                           | +                                      | —           | —            |                                        |                              |                   |
|             | 1,080                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 330                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 33.         | 1,865                                                                                        | —                                      | —           | —            | 13·7                                   | Trace                        | 13·7              |
|             | 430                                                                                          | —                                      | —           | —            | 41·7                                   | „                            | 41·7              |
|             | 4,300                                                                                        | —                                      | —           | —            | 18                                     | „                            | 18                |
|             | 980                                                                                          | —                                      | —           | —            | 21                                     | „                            | 21                |
| 34.         | 940                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 170                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 376                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 50                                                                                           | —                                      | —           | —            |                                        |                              |                   |
| 35.         | 830                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 1,100                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 6,300                                                                                        | +                                      | +           | —            |                                        |                              |                   |
|             | 23,000                                                                                       | +                                      | +           | +            |                                        |                              |                   |
|             | 10,200                                                                                       | +                                      | +           | +            |                                        |                              |                   |
|             | 7,040                                                                                        | +                                      | +           | —            |                                        |                              |                   |
| 36.         | 610                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 700                                                                                          | —                                      | —           | —            |                                        |                              |                   |

\* Standard :—Not more than 200,000 bacteria per c.c. and no B. Coli in 0·01 of a c.c.

"GRADE A" MILK—*continued*.

| Licence No. | * Cultivation.<br>Bacteria growing<br>on standard agar at<br>37° C. in 48 hours.<br>per c.c. | *B. Coli.<br>Present = +<br>Absent = - |             |              | Dirt Estimation.<br>Parts per 100,000. |                              |                   |
|-------------|----------------------------------------------------------------------------------------------|----------------------------------------|-------------|--------------|----------------------------------------|------------------------------|-------------------|
|             |                                                                                              | 1·0<br>c.c.                            | 0·1<br>c.c. | 0·01<br>c.c. | Cells<br>and<br>Cellular<br>Products   | Extran-<br>eous<br>Materials | Total<br>Sediment |
| 37.         | 1,260                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 13                                                                                           | —                                      | —           | —            |                                        |                              |                   |
|             | 160                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 870                                                                                          | +                                      | —           | —            |                                        |                              |                   |
| 38.         | 10                                                                                           | —                                      | —           | —            |                                        |                              |                   |
|             | 13,900                                                                                       | +                                      | +           | —            |                                        |                              |                   |
| 39.         | 160                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 10                                                                                           | —                                      | —           | —            |                                        |                              |                   |
| 40.         | 116                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 1,930                                                                                        | +                                      | —           | —            |                                        |                              |                   |
| 41.         | 650                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 23                                                                                           | +                                      | —           | —            |                                        |                              |                   |
|             | 200                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 50                                                                                           | —                                      | —           | —            |                                        |                              |                   |
| 42.         | 20                                                                                           | —                                      | —           | —            |                                        |                              |                   |
|             | 1,280                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 1,370                                                                                        | +                                      | —           | —            |                                        |                              |                   |
| 43.         | 240                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 875,000                                                                                      | +                                      | +           | +            |                                        |                              |                   |
|             | 9,200                                                                                        | +                                      | +           | +            |                                        |                              |                   |
|             | 200                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 44.         | 1,800                                                                                        | +                                      | +           | —            |                                        |                              |                   |
|             | 87                                                                                           | —                                      | —           | —            |                                        |                              |                   |
|             | 1,100                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 500                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 45.         | 29,200                                                                                       | +                                      | +           | +            |                                        |                              |                   |
|             | 300                                                                                          | +                                      | —           | —            |                                        |                              |                   |
| 47.         | 130                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 1,900                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 103                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 530                                                                                          | —                                      | —           | —            |                                        |                              |                   |
| 48.         | 230                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 80                                                                                           | —                                      | —           | —            |                                        |                              |                   |
| 49.         | 3,100                                                                                        | —                                      | —           | —            | 18                                     | 2                            | 20                |
|             | 1,327                                                                                        | —                                      | —           | —            | 9                                      | Trace                        | 9                 |
|             | 22,500                                                                                       | +                                      | +           | —            | 7                                      | „                            | 7                 |
|             | 40,500                                                                                       | +                                      | +           | —            | 33                                     | „                            | 33                |
| 50.         | 7,900                                                                                        | —                                      | —           | —            | 7                                      | Trace                        | 7                 |
|             | 37,500                                                                                       | +                                      | +           | —            | 23                                     | 3                            | 26                |
| 51.         | 100                                                                                          | +                                      | —           | —            |                                        |                              |                   |
|             | 4,020                                                                                        | +                                      | +           | —            |                                        |                              |                   |
|             | 3,000                                                                                        | +                                      | —           | —            |                                        |                              |                   |
| 52.         | 840                                                                                          | —                                      | —           | —            |                                        |                              |                   |
|             | 4,790                                                                                        | +                                      | —           | —            |                                        |                              |                   |
|             | 2,600                                                                                        | +                                      | —           | —            |                                        |                              |                   |
| 53.         | 350                                                                                          | —                                      | —           | —            | 15                                     | Trace                        | 15                |

\* Standard :—Not more than 200,000 bacteria per c.c. and no B. Coli in 0·01 of a c.c.



The "keeping quality" of these samples was reported as follows :—

|            |     |     |     |                    |
|------------|-----|-----|-----|--------------------|
| 1 sample   | ... | ... | ... | 1 day              |
| 14 samples | ... | ... | ... | 2 and under 4 days |
| 82         | „   | ... | ... | 4 „ „ 6 „          |
| 33         | „   | ... | ... | 6 days or over     |

76 of the samples were examined for tubercle bacilli and 6 were reported positive.

Constant observation is kept by the County Sanitary Officers on the premises licensed for the production and distribution of "Grade A" milk, and in any case where examination of the milk shows a count in excess of the standard the closest investigation is made immediately.

**REPORT OF THE REORGANISATION COMMISSION FOR MILK.**—In 1932, the Minister of Agriculture and Fisheries appointed an Agricultural Marketing Reorganisation Commission charged with the duty of preparing a scheme or schemes for regulating the marketing of milk.

The Commission issued its report early in 1933.

The main features of the report are in connection with the production, distribution and marketing of milk and the price policy, but certain chapters are of interest to the Public Health Authorities.

Chapter VI deals with the law as it affects milk; Chapter X relates to the importance of improvement in quality of milk, and also recommends the compulsory routine inspection of dairy cattle and suggests a revision of the present official designated grades of milk. It also advocates a whole time veterinary service, recommends an amendment of the law as to the sale of milk, and makes suggestions as to the qualifications of sanitary inspectors.

**Inspection of Meat and Other Food.**—Comments are made in most of the local reports on the action taken with regard to the inspection of meat and other food, including inspection of slaughterhouses, meat shops, stalls and vehicles, and places where food is prepared.

**UNSOUND FOOD.**—The following statement shows approximately the amount of unsound or diseased food condemned and destroyed by the local health officers during 1933 :—

On account of Tuberculosis.—238,984 lbs. of meat (including weights of carcasses and parts of carcasses); many parts (weights not stated); 153 whole carcasses; sets of organs, heads, plucks, livers, etc.

For other reasons.—378 whole carcasses, 6,858 lbs. beef, 880 lbs. pork, 1,464 lbs. mutton, 76,989 lbs. unclassified meat, 449 livers, sets of organs, lungs, heads, plucks, etc., 37 lbs. and 4 tins corned beef, 96 lbs. boiled ham and tongue, 26 lbs. sausage, and 4 sausage rolls, 6 meat pies, 48 black puddings, 10 moulds potted meat, 8 savouries, 196 rabbits, 217 chickens, 2 turkeys, 8 pigeons, 100 crabs, 1,138 lbs and 7 pieces fish, 666 lbs., 29 cases, 13 barrels apples, 3,240 oranges, 60 lbs. and 3 barrels pears, 25 lbs. and 3 crates tomatoes, 190 tins, 5 barrels, 3 baskets, 88 lbs. fruit, 103 cwt. potatoes, 120 lbs. onions, 12 boxes kippers, 10 boxes haddock, 38 jars lemon cheese, 110 coconuts, 11 lbs. tinned milk, 30 assorted tins food, and 7,987 lbs. unclassified food.

At Droylsden successful legal proceedings were instituted in one case under the 1924 Meat Regulations.

**Meat Regulations, etc.**—New Regulations were made under the title "The Public Health (Imported Food) Amendment Regulations, 1933," and three Circulars, Nos. 1345, 1350, and 1361, were also issued in 1933 relating to this subject.

**Mussel Purification.**—The mussel beds at Lytham Saint Anne's (B) have remained closed during 1933. Under the Public Health (Cleansing of Shellfish) Act, 1932, the County Council has approved a scheme for the provision of purification tanks, etc.

**SLAUGHTERHOUSES.**—These premises number 640—registered, 236; licensed, 404. In a few instances proceedings were taken under the Public Health Meat Regulations for failing to give notice of intention to slaughter. The Slaughter of Animals Act, 1933, was passed on the 28th July, 1933.

**PUBLIC ABATTOIRS.**—Public abattoirs have been provided at Acerington (B), Chorley (B), Clitheroe (B), Colne (B), Darwen (B), Fleetwood (B), Great Harwood, Lancaster (B), Lytham Saint Anne's (B) (2), Newton-in-Makerfield, Oswaldtwistle, and Stretford (B). A public abattoir is said to be one of the chief sanitary requirements at Haslingden (B).

**Food Poisoning.**—Outbreaks of illness suspected to be due to food poisoning were reported during 1933 at Ashton-under-Lyne (B) and Skelmersdale.

**Bakehouses.**—From the local returns there are 2,656 bakehouses in use in the Administrative County area.

**Food and Drugs (Adulteration) Act, 1928, etc.**—The following paragraphs and tables are extracted from the annual report for the year 1933 of the County Analyst, Mr. G. D. Elsdon, B.Sc., F.I.C. :—

The Acts and Regulations relating to the adulteration of food and drugs in force in 1933 are as under :—

The Food and Drugs (Adulteration) Act, 1928.  
 Section 4 of the Milk and Dairies (Amendment) Act, 1922.  
 Condensed Milk Regulations, 1923 and 1927.  
 Dried Milk Regulations, 1923 and 1927.  
 Preservatives in Food Regulations.  
 Sale of Milk Regulations, 1901 and 1912.  
 Sale of Butter Regulations, 1902.  
 Artificial Cream Act, 1929.

During the year under review a total of 5,263 samples were submitted under the Food and Drugs (Adulteration) Act, whilst 76 appeal-to-cow samples were taken for comparison with some of the adulterated samples of milk. These numbers are compared with those for previous years in the table below, where figures for the other examinations carried out in the County Laboratory are also given :—

TOTAL NUMBER OF SAMPLES EXAMINED, 1912-1933.

| Year.    | Food and<br>Drugs<br>Act.<br>* | Fertilisers and<br>Feeding<br>Stuffs Act. | Waters<br>and<br>Effluents. | From<br>Coroners,<br>Police, etc. | Miscel-<br>laneous. | Total. |
|----------|--------------------------------|-------------------------------------------|-----------------------------|-----------------------------------|---------------------|--------|
| 1912 ... | 5,153                          | 3                                         | 75                          | 26                                | 37                  | 5,294  |
| 1913 ... | 5,179                          | 125                                       | 63                          | 2                                 | 40                  | 5,409  |
| 1914 ... | 5,018                          | 57                                        | 71                          | 15                                | 50                  | 5,211  |
| 1915 ... | 5,041                          | 14                                        | 63                          | 2                                 | 18                  | 5,138  |
| 1916 ... | 4,847                          | 2                                         | 45                          | 9                                 | 16                  | 4,919  |
| 1917 ... | 4,820                          | 5                                         | 14                          | 25                                | 38                  | 4,902  |
| 1918 ... | 4,792                          | 5                                         | 62                          | 13                                | 10                  | 4,882  |
| 1919 ... | 4,848                          | 0                                         | 66                          | 11                                | 44                  | 4,969  |
| 1920 ... | 4,732                          | 4                                         | 59                          | 19                                | 21                  | 4,835  |
| 1921 ... | 4,919                          | 1                                         | 47                          | 14                                | 29                  | 5,010  |
| 1922 ... | 4,977                          | 0                                         | 62                          | 37                                | 33                  | 5,109  |
| 1923 ... | 4,948                          | 3                                         | 71                          | 15                                | 74                  | 5,111  |
| 1924 ... | 4,995                          | 31                                        | 60                          | 22                                | 47                  | 5,155  |
| 1925 ... | 4,589                          | 9                                         | 63                          | 51                                | 43                  | 4,755  |
| 1926 ... | 4,841                          | 2                                         | 45                          | 10                                | 298                 | 5,196  |
| 1927 ... | 4,396                          | 7                                         | 77                          | 18                                | 44                  | 4,542  |
| 1928 ... | 5,000                          | 19                                        | 159                         | 36                                | 181                 | 5,395  |
| 1929 ... | 5,079                          | 26                                        | 124                         | 23                                | 75                  | 5,327  |
| 1930 ... | 5,090                          | 28                                        | 127                         | 4                                 | 54                  | 5,303  |
| 1931 ... | 5,226                          | 28                                        | 59                          | 50                                | 85                  | 5,448  |
| 1932 ... | 5,332                          | 30                                        | 75                          | 28                                | 66                  | 5,531  |
| 1933 ... | 5,339                          | 36                                        | 102                         | 33                                | 125                 | 5,635  |

\*Including "appeal-to-cow" samples.

The number of samples examined continues to increase, that for the year 1933 being greater than in any year since the County Laboratory was taken over completely by the County Council in the year 1912.

Of the 5,263 samples examined under the Food and Drugs (Adulteration) Act, 1928, 199 or 3·8 per cent. were returned as adulterated. In the following table this percentage of adulteration is compared with those for the previous seven years, and for the four quarters thereof :—

PERCENTAGE OF ADULTERATION—ALL SAMPLES.

| Year.        | 1st Quarter.       |                | 2nd Quarter.       |                | 3rd Quarter.       |                | 4th Quarter.       |                | Whole Year.        |                |
|--------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|
|              | No. of<br>samples. | % of<br>Adult. | No. of<br>samples. | % of<br>Adult. | No. of<br>samples. | % of<br>Adult. | No. of<br>samples. | % of<br>Adult. | No. of<br>samples. | % of<br>Adult. |
| 1926... ..   | 1216               | 3·5            | 1074               | 2·8            | 956                | 2·3            | 1507               | 1·7            | 4753               | 2·5            |
| 1927... ..   | 819                | 2·0            | 1215               | 3·2            | 910                | 2·5            | 1397               | 1·5            | 4341               | 2·3            |
| 1928... ..   | 1182               | 3·0            | 1248               | 4·6            | 1046               | 2·5            | 1457               | 1·9            | 4933               | 3·0            |
| 1929... ..   | 1268               | 2·8            | 1204               | 4·0            | 1153               | 3·1            | 1368               | 1·5            | 4993               | 2·8            |
| 1930... ..   | 1311               | 3·2            | 1295               | 2·3            | 1059               | 3·0            | 1322               | 1·8            | 4987               | 2·6            |
| 1931... ..   | 1280               | 3·6            | 1358               | 1·8            | 1112               | 2·9            | 1396               | 2·6            | 5146               | 2·7            |
| 1932... ..   | 1326               | 3·2            | 1375               | 4·1            | 1143               | 3·3            | 1401               | 1·9            | 5245               | 3·1            |
| 1933... ..   | 1322               | 2·3            | 1384               | 5·4            | 1165               | 4·5            | 1392               | 2·9            | 5263               | 3·8            |
| Total ... .. | 9724               | 3·0            | 10153              | 3·6            | 8544               | 3·1            | 11240              | 2·0            | 39661              | 2·9            |



Details concerning the number and nature of the individual articles examined and the proportion of adulteration found are given in the following table :—

## TOTAL SAMPLES EXAMINED DURING 1933.

| Samples.                           | Number examined. |           |        | Number adulterated. |           |        | Percentage of Adulteration. |
|------------------------------------|------------------|-----------|--------|---------------------|-----------|--------|-----------------------------|
|                                    | Formal.          | Informal. | Total. | Formal.             | Informal. | Total. |                             |
| Almond Oil ... ..                  | ...              | 7         | 7      | ...                 | ...       | ...    | ...                         |
| Almonds, Essence of ... ..         | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Almonds, Ground ... ..             | ...              | 16        | 16     | ...                 | ...       | ...    | ...                         |
| Arrowroot ... ..                   | ...              | 65        | 65     | ...                 | ...       | ...    | ...                         |
| Aspirin Tablets ... ..             | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Baking Powder ... ..               | ...              | 69        | 69     | ...                 | ...       | ...    | ...                         |
| Barley ... ..                      | ...              | 27        | 27     | ...                 | ...       | ...    | ...                         |
| Beverages, Non-Alcoholic ... ..    | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Bismuth Carbonate ... ..           | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Blanc Mange Powder ... ..          | ...              | 9         | 9      | ...                 | ...       | ...    | ...                         |
| Borax ... ..                       | ...              | 17        | 17     | ...                 | ...       | ...    | ...                         |
| Boric Acid ... ..                  | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Bread and Butter ... ..            | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Brimstone and Treacle ... ..       | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Butter ... ..                      | ...              | 139       | 139    | ...                 | ...       | ...    | ...                         |
| Cakes, Cream ... ..                | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Camphorated Oil ... ..             | ...              | 3         | 3      | ...                 | ...       | ...    | ...                         |
| Cascara Sagrada, Extract of ... .. | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Castor Oil ... ..                  | ...              | 25        | 25     | ...                 | ...       | ...    | ...                         |
| Cayenne ... ..                     | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Cheese ... ..                      | ...              | 91        | 91     | ...                 | ...       | ...    | ...                         |
| Chicory ... ..                     | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Cinnamon ... ..                    | ...              | 13        | 13     | ...                 | ...       | ...    | ...                         |
| Citric Acid ... ..                 | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Cocoa ... ..                       | ...              | 66        | 66     | ...                 | ...       | ...    | ...                         |
| Coconut ... ..                     | ...              | 10        | 10     | ...                 | ...       | ...    | ...                         |
| Cod Liver Oil ... ..               | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Coffee ... ..                      | ...              | 130       | 130    | ...                 | ...       | ...    | ...                         |
| Coffee and Chicory ... ..          | ...              | 3         | 3      | ...                 | ...       | ...    | ...                         |
| Cornflour ... ..                   | ...              | 31        | 31     | ...                 | ...       | ...    | ...                         |
| Cough Medicine ... ..              | ...              | 6         | 6      | ...                 | ...       | ...    | ...                         |
| Cream ... ..                       | 2                | 18        | 20     | 1                   | 3         | 4      | 20·0                        |
| Cream, Salad ... ..                | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Custard Powder ... ..              | ...              | 41        | 41     | ...                 | 1         | 1      | 2·4                         |
| Dripping ... ..                    | 1                | 1         | 2      | 1                   | 1         | 2      | 100·0                       |
| Egg Substitute ... ..              | ...              | 7         | 7      | ...                 | ...       | ...    | ...                         |
| Epsom Salts ... ..                 | ...              | 43        | 43     | ...                 | ...       | ...    | ...                         |
| Eucalyptus Oil ... ..              | ...              | 3         | 3      | ...                 | ...       | ...    | ...                         |
| Figs, Compound Syrup of ... ..     | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Fish, Canned ... ..                | ...              | 20        | 20     | ...                 | ...       | ...    | ...                         |
| Fish Paste ... ..                  | ...              | 19        | 19     | ...                 | ...       | ...    | ...                         |
| Fish, Potted ... ..                | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Flour ... ..                       | ...              | 27        | 27     | ...                 | ...       | ...    | ...                         |
| Flour, Cake ... ..                 | ...              | 4         | 4      | ...                 | ...       | ...    | ...                         |
| Flour, Self-raising ... ..         | ...              | 9         | 9      | ...                 | ...       | ...    | ...                         |
| Fruit, Canned ... ..               | ...              | 9         | 9      | ...                 | ...       | ...    | ...                         |
| Fruit, Dried ... ..                | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Fuller's Earth ... ..              | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Ginger, Ground ... ..              | ...              | 77        | 77     | ...                 | ...       | ...    | ...                         |
| Glauber Salts ... ..               | ...              | 4         | 4      | ...                 | ...       | ...    | ...                         |
| Glycerin ... ..                    | ...              | 18        | 18     | ...                 | ...       | ...    | ...                         |
| Gravy Browning ... ..              | ...              | 21        | 21     | ...                 | 1         | 1      | 4·8                         |
| Gregory's Powder ... ..            | ...              | 10        | 10     | ...                 | ...       | ...    | ...                         |
| Health Salts ... ..                | ...              | 6         | 6      | ...                 | ...       | ...    | ...                         |
| Honey ... ..                       | ...              | 4         | 4      | ...                 | ...       | ...    | ...                         |
| Influenza Medicine ... ..          | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Iodine, Tincture of (weak) ... ..  | ...              | 2         | 2      | ...                 | ...       | ...    | ...                         |
| Jam ... ..                         | 5                | 61        | 66     | 4                   | 6         | 10     | 15·2                        |
| Jelly ... ..                       | ...              | 36        | 36     | ...                 | 1         | 1      | 2·8                         |
| Lard ... ..                        | ...              | 140       | 140    | ...                 | ...       | ...    | ...                         |
| Lard Substitute ... ..             | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Lemonade Powder ... ..             | ...              | 5         | 5      | ...                 | 3         | 3      | 60·0                        |
| Lemon Cheese ... ..                | ...              | 16        | 16     | ...                 | ...       | ...    | ...                         |
| Lemon, Essence of ... ..           | ...              | 1         | 1      | ...                 | ...       | ...    | ...                         |
| Liquorice Powder ... ..            | ...              | 14        | 14     | ...                 | ...       | ...    | ...                         |
| Magnesia ... ..                    | ...              | 8         | 8      | ...                 | ...       | ...    | ...                         |

SAMPLES EXAMINED DURING 1933—*continued.*

| Samples                             | Number examined. |           |        | Number adulterated. |           |       | Percentage of Adulteration. |
|-------------------------------------|------------------|-----------|--------|---------------------|-----------|-------|-----------------------------|
|                                     | Formal.          | Informal. | Total. | Formal              | Informal. | Total |                             |
| Magnesia, Citrate of ...            | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Margarine ...                       | ...              | 106       | 106    | ...                 | ...       | ...   | ...                         |
| Marmalade ...                       | ...              | 19        | 19     | ...                 | ...       | ...   | ...                         |
| Meat, Canned ...                    | ...              | 4         | 4      | ...                 | ...       | ...   | ...                         |
| Meat, Cooked ...                    | ...              | 8         | 8      | ...                 | ...       | ...   | ...                         |
| Meat Paste ...                      | ...              | 12        | 12     | ...                 | ...       | ...   | ...                         |
| Meat Pie ...                        | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Milk ...                            | 2969             | 15        | 2984   | 161                 | 2         | 163   | 5.5                         |
| Milk, Condensed ...                 | ...              | 30        | 30     | ...                 | ...       | ...   | ...                         |
| Milk Food ...                       | ...              | 2         | 2      | ...                 | ...       | ...   | ...                         |
| Milk, Skimmed ...                   | ...              | 2         | 2      | ...                 | ...       | ...   | ...                         |
| Mincemeat ...                       | ...              | 3         | 3      | ...                 | ...       | ...   | ...                         |
| Mustard ...                         | 1                | 50        | 51     | 1                   | 2         | 3     | 5.9                         |
| Oatmeal ...                         | ...              | 26        | 26     | ...                 | ...       | ...   | ...                         |
| Olive Oil ...                       | ...              | 22        | 22     | ...                 | ...       | ...   | ...                         |
| Pectin ...                          | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Pepper ...                          | ...              | 113       | 113    | ...                 | ...       | ...   | ...                         |
| Pickles ...                         | ...              | 6         | 6      | ...                 | ...       | ...   | ...                         |
| Pudding ...                         | ...              | 4         | 4      | ...                 | ...       | ...   | ...                         |
| Quinine, Ammoniated Tablets of ...  | ...              | 1         | 1      | ...                 | 1         | 1     | 100.0                       |
| Quinine, Ammoniated Tincture of ... | ...              | 2         | 2      | ...                 | ...       | ...   | ...                         |
| Raspberry Vinegar ...               | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Rhubarb, Tincture of ...            | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Rice ...                            | ...              | 44        | 44     | ...                 | ...       | ...   | ...                         |
| Rice, Ground ...                    | ...              | 30        | 30     | ...                 | ...       | ...   | ...                         |
| Rum and Coffee ...                  | ...              | 1         | 1      | ...                 | 1         | 1     | 100.0                       |
| Sago ...                            | ...              | 10        | 10     | ...                 | ...       | ...   | ...                         |
| Salt ...                            | ...              | 3         | 3      | ...                 | ...       | ...   | ...                         |
| Sal Volatile, Spirit of ...         | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Sauce ...                           | ...              | 10        | 10     | ...                 | ...       | ...   | ...                         |
| Sausages ...                        | 1                | 11        | 12     | ...                 | 1         | 1     | 8.3                         |
| Seidlitz Powder ...                 | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Semolina ...                        | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Sodium Bicarbonate ...              | ...              | 26        | 26     | ...                 | ...       | ...   | ...                         |
| Soup Powder ...                     | ...              | 5         | 5      | ...                 | ...       | ...   | ...                         |
| Spice ...                           | ...              | 17        | 17     | ...                 | ...       | ...   | ...                         |
| Suet ...                            | ...              | 7         | 7      | ...                 | ...       | ...   | ...                         |
| Sugar ...                           | 1                | 62        | 63     | ...                 | ...       | ...   | ...                         |
| Sulphur, Flowers of ...             | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Sulphur Tablets ...                 | ...              | 15        | 15     | ...                 | 1         | 1     | 6.7                         |
| Sweets ...                          | ...              | 48        | 48     | ...                 | ...       | ...   | ...                         |
| Syrup ...                           | ...              | 8         | 8      | ...                 | ...       | ...   | ...                         |
| Tapioca ...                         | ...              | 21        | 21     | ...                 | ...       | ...   | ...                         |
| Tartar, Cream of ...                | 1                | 38        | 39     | 1                   | 3         | 4     | 10.3                        |
| Tartaric Acid ...                   | ...              | 2         | 2      | ...                 | 1         | 1     | 50.0                        |
| Tea ...                             | ...              | 73        | 73     | ...                 | ...       | ...   | ...                         |
| Treacle ...                         | ...              | 12        | 12     | ...                 | ...       | ...   | ...                         |
| Vegetables, Canned ...              | ...              | 6         | 6      | ...                 | ...       | ...   | ...                         |
| Vegetables, Dried ...               | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Vinegar ...                         | ...              | 6         | 6      | ...                 | ...       | ...   | ...                         |
| Whisky ...                          | ...              | 6         | 6      | ...                 | 2         | 2     | 33.3                        |
| Wine, Ginger ...                    | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Yeast ...                           | ...              | 7         | 7      | ...                 | ...       | ...   | ...                         |
| Zinc Ointment ...                   | ...              | 1         | 1      | ...                 | ...       | ...   | ...                         |
| Total ...                           | 2,981            | 2,282     | 5,263  | 169                 | 30        | 199   | 3.8                         |

The figure for total adulteration for the whole year is the highest recorded since 1925, and is 0.9 per cent. higher than the average for the whole eight years. The bulk of this increase is due to the larger number of milk samples found to be adulterated. The adulteration of articles other than milk is, however, considerably greater than that for last year, when it was low, and 0.1 per cent. above the average for the past eight years.



In spite, however, of the increase, the figure cannot be regarded as a comparatively high one. In the following table it is compared with the annual figures since the year 1912 :—

PERCENTAGE OF ADULTERATION OF ALL SAMPLES, 1912–1933.

| Year  |     |     | Total<br>No. of<br>Samples. | No. of<br>Adulterated<br>Samples. | Percentage<br>of<br>Adulteration. |
|-------|-----|-----|-----------------------------|-----------------------------------|-----------------------------------|
| 1912  | ... | ... | 5,071                       | 283                               | 5·6                               |
| 1913  | ... | ... | 5,094                       | 281                               | 5·5                               |
| 1914  | ... | ... | 4,964                       | 373                               | 7·5                               |
| 1915  | ... | ... | 5,001                       | 267                               | 5·3                               |
| 1916  | ... | ... | 4,793                       | 242                               | 5·0                               |
| 1917  | ... | ... | 4,753                       | 342                               | 7·2                               |
| 1918  | ... | ... | 4,711                       | 322                               | 6·8                               |
| 1919  | ... | ... | 4,780                       | 253                               | 5·3                               |
| 1920  | ... | ... | 4,677                       | 185                               | 4·0                               |
| 1921  | ... | ... | 4,865                       | 186                               | 3·8                               |
| 1922  | ... | ... | 4,940                       | 184                               | 3·7                               |
| 1923  | ... | ... | 4,925                       | 171                               | 3·5                               |
| 1924  | ... | ... | 4,974                       | 155                               | 3·1                               |
| 1925  | ... | ... | 4,540                       | 279                               | 6·1                               |
| 1926  | ... | ... | 4,753                       | 120                               | 2·5                               |
| 1927  | ... | ... | 4,341                       | 99                                | 2·3                               |
| 1928  | ... | ... | 4,933                       | 146                               | 3·0                               |
| 1929  | ... | ... | 4,993                       | 140                               | 2·8                               |
| 1930  | ... | ... | 4,987                       | 128                               | 2·6                               |
| 1931  | ... | ... | 5,146                       | 139                               | 2·7                               |
| 1932  | ... | ... | 5,245                       | 164                               | 3·1                               |
| 1933  | ... | ... | 5,263                       | 199                               | 3·8                               |
| Total | ... | ... | 107,749                     | 4,658                             | 4·3                               |

Before the year 1924 the annual figure for adulteration varied between 7·5 per cent. and 3·5 per cent., whilst the average for the whole of the 22 years since 1912 is 4·3 per cent. Moreover, the figures for the County of Lancaster are low when compared with those for the whole of England and Wales.

The samples taken under the Food and Drugs Act are divided into two Sections “ Formal ” and “ Informal ” samples. Formal samples are those which are taken in accordance with Section 18 of the Act which reads :—

“ The person purchasing a sample . . . shall . . . forthwith notify to the seller . . . his intention to have it analysed by the public analyst, and shall then and there divide the sample into three parts . . . and shall . . . deliver one part to the seller . . . retain one part for future comparison . . . submit one part to the analyst.”

Informal samples are those in which the formalities of the Act are not complied with, and, in general the seller has no knowledge that the taking of samples is for official purposes. No legal action under the Food and Drugs Act can follow the purchase of an informal sample. The taking of informal samples is a valuable method of enquiry into the food supply of the County, and for finding at which shops it would be useful to take formal samples with a view to legal proceedings.

In the County of Lancaster it is now the general practice to take formal samples of milk and informal samples of other articles. Where an informal sample is found to be suspicious or adulterated, a formal sample is taken from the same source, so that proceedings may, if necessary, be instituted against the vendor. In the following table, the numbers of formal samples and of informal samples received during the last eight years are given, together with the totals.

NUMBERS OF FORMAL AND INFORMAL SAMPLES, 1926–1933.

| Year  |     |     | Samples. |           |        |
|-------|-----|-----|----------|-----------|--------|
|       |     |     | Formal.  | Informal. | Total. |
| 1926  | ... | ... | 2,786    | 1,967     | 4,753  |
| 1927  | ... | ... | 2,429    | 1,912     | 4,341  |
| 1928  | ... | ... | 2,789    | 2,144     | 4,933  |
| 1929  | ... | ... | 2,747    | 2,246     | 4,993  |
| 1930  | ... | ... | 2,958    | 2,029     | 4,987  |
| 1931  | ... | ... | 3,010    | 2,136     | 5,146  |
| 1932  | ... | ... | 3,083    | 2,162     | 5,245  |
| 1933  | ... | ... | 2,981    | 2,282     | 5,263  |
| Total | ... | ... | 22,783   | 16,878    | 39,661 |

MILK.—During the year 1933, two thousand nine hundred and eighty-four milks have been examined, of which one hundred and sixty-three or 5·5 per cent., have been returned as adulterated. This figure is much less than that usually found for the whole of England and Wales, which was 7·3 per cent. in the year 1932.

In the following table the percentage of milk adulteration is given for the past eight years :—

PERCENTAGE OF ADULTERATION—MILK SAMPLES, 1926–1933.

| Year.      | 1st Quarter.    |             | 2nd Quarter.    |             | 3rd Quarter.    |             | 4th Quarter.    |             | Whole Year.     |             |
|------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
|            | No. of samples. | % of Adult. | No. of samples. | % of Adult. | No. of samples. | % of Adult. | No. of samples. | % of Adult. | No. of samples. | % of Adult. |
| 1926... .. | 704             | 5·1         | 555             | 4·9         | 526             | 2·7         | 929             | 2·4         | 2714            | 3·6         |
| 1927... .. | 464             | 2·4         | 643             | 3·4         | 468             | 1·1         | 837             | 1·7         | 2412            | 2·2         |
| 1928... .. | 746             | 4·0         | 666             | 4·3         | 562             | 3·6         | 797             | 2·0         | 2771            | 3·4         |
| 1929... .. | 711             | 4·4         | 712             | 6·2         | 549             | 4·6         | 785             | 1·9         | 2757            | 4·2         |
| 1930... .. | 778             | 4·1         | 786             | 2·5         | 646             | 4·0         | 739             | 2·8         | 2949            | 3·4         |
| 1931... .. | 702             | 5·4         | 834             | 2·4         | 676             | 3·8         | 798             | 3·5         | 3010            | 3·7         |
| 1932... .. | 749             | 4·5         | 809             | 6·8         | 706             | 4·8         | 854             | 2·8         | 3118            | 4·7         |
| 1933... .. | 753             | 3·7         | 808             | 8·0         | 673             | 6·2         | 750             | 3·7         | 2984            | 5·5         |
| Total ...  | 5607            | 4·3         | 5813            | 4·8         | 4806            | 4·0         | 6489            | 2·6         | 23715           | 3·9         |

The average composition of the whole of the milks examined, including appeal-to-cow samples, is given in the following table, from which it will be seen that the average fat content is 3·76 per cent., whilst that for solids-not-fat is 8·82 per cent. These figures are :—

AVERAGE COMPOSITION OF MILKS, 1933.

| Month.         | Number of Samples.* | Total Solids per cent. | Fat per cent. | Solids-not-fat per cent. |
|----------------|---------------------|------------------------|---------------|--------------------------|
| January ...    | 762                 | 257 { 12·58            | 3·72 { 3·70   | 8·86 { 8·88              |
| February ...   |                     | 287 { 12·61            |               |                          |
| March ...      |                     | 218 { 12·53            |               |                          |
| April ...      | 836                 | 327 { 12·51            | 3·68 { 3·71   | 8·81 { 8·80              |
| May ...        |                     | 319 { 12·51            |               |                          |
| June ...       |                     | 190 { 12·41            |               |                          |
| July ...       | 699                 | 299 { 12·30            | 3·73 { 3·60   | 8·72 { 8·70              |
| August ...     |                     | 178 { 12·56            |               |                          |
| September ...  |                     | 222 { 12·56            |               |                          |
| October ...    | 763                 | 289 { 12·80            | 3·92 { 3·97   | 8·86 { 8·83              |
| November ...   |                     | 272 { 12·79            |               |                          |
| December ...   |                     | 202 { 12·74            |               |                          |
| Whole Year ... | 3060                | 12·58                  | 3·76          | 8·82                     |

\* Includes “ appeal-to-cow ” samples.

During the last 24 years the average fat content has varied between 3·55 per cent. in the years 1910 and 1911 and 3·84 per cent. in the year 1931, which is the highest figure which has yet been recorded. The figure for solids-not-fat has varied between 8·75 per cent. in the year 1910 to 9·03 per cent. in the years 1922 and 1923. Whilst a steady improvement was shown in the earlier years, the figures since the war years have been remarkably constant, and do not indicate any material changes due to the introduction of new strains of milch cows. A table showing the various changes from year to year follows.



## AVERAGE COMPOSITION OF MILKS, 1910-1933.

| Year.     |     |     | Number<br>of<br>Samples. | Fat<br>per cent. | Solids-not-fat<br>per cent. | Total Solids<br>per cent. |
|-----------|-----|-----|--------------------------|------------------|-----------------------------|---------------------------|
| 1910      | ... | ... | 1220                     | 3·55             | 8·75                        | 12·30                     |
| 1911      | ... | ... | 1639                     | 3·55             | 8·76                        | 12·31                     |
| 1912      | ... | ... | 2094                     | 3·63             | 8·83                        | 12·46                     |
| 1913      | ... | ... | 2585                     | 3·67             | 8·81                        | 12·48                     |
| 1914      | ... | ... | 2540                     | 3·59             | 8·80                        | 12·39                     |
| 1915      | ... | ... | 2707                     | 3·62             | 8·86                        | 12·48                     |
| 1916      | ... | ... | 2767                     | 3·66             | 8·88                        | 12·54                     |
| 1917      | ... | ... | 2869                     | 3·71             | 8·81                        | 12·52                     |
| 1918      | ... | ... | 3396                     | 3·67             | 8·84                        | 12·51                     |
| 1919      | ... | ... | 2991                     | 3·65             | 8·91                        | 12·56                     |
| 1920      | ... | ... | 2889                     | 3·68             | 8·96                        | 12·64                     |
| 1921      | ... | ... | 2451                     | 3·65             | 8·94                        | 12·59                     |
| 1922      | ... | ... | 2774                     | 3·69             | 9·03                        | 12·72                     |
| 1923      | ... | ... | 3011                     | 3·68             | 9·03                        | 12·71                     |
| 1924      | ... | ... | 3142                     | 3·71             | 8·99                        | 12·70                     |
| 1925      | ... | ... | 2958                     | 3·62             | 8·92                        | 12·54                     |
| 1926      | ... | ... | 2795                     | 3·66             | 8·92                        | 12·58                     |
| 1927      | ... | ... | 2467                     | 3·76             | 8·94                        | 12·70                     |
| 1928      | ... | ... | 2838                     | 3·74             | 8·90                        | 12·64                     |
| 1929      | ... | ... | 2843                     | 3·71             | 8·90                        | 12·61                     |
| 1930      | ... | ... | 3052                     | 3·78             | 8·90                        | 12·68                     |
| 1931      | ... | ... | 3090                     | 3·84             | 8·81                        | 12·65                     |
| 1932      | ... | ... | 3205                     | 3·77             | 8·85                        | 12·62                     |
| 1933      | ... | ... | 3060                     | 3·76             | 8·82                        | 12·58                     |
| 1910-1933 |     |     | 65383                    | 3·69             | 8·89                        | 12·58                     |

Although the average amount of fat in milk is thus well above the limit of 3·0 per cent. fixed by the Sale of Milk Regulations, it has been claimed on many occasions that the percentage of fat is seriously diminished during the season when the cows are first put out to grass, diminished so seriously, in fact, that a considerable number, if not the majority of herds, will be giving milk containing less fat than 3·0 per cent.

In order to see to what extent such a statement is supported by the results of analysis the whole of the samples taken during the years 1910-1933 have been averaged according to the month in which they were taken, and the figures so obtained are arranged in the table below:—

## AVERAGE COMPOSITION OF MILKS FOR EACH MONTH, 1910-1933.

| Month.    |     |     | Number<br>of<br>Samples. | Fat<br>per cent. | Solids-not-fat<br>per cent. | Total Solids<br>per cent. |
|-----------|-----|-----|--------------------------|------------------|-----------------------------|---------------------------|
| January   | ... | ... | 4622                     | 3·66             | 8·90                        | 12·56                     |
| February  | ... | ... | 5826                     | 3·63             | 8·88                        | 12·51                     |
| March     | ... | ... | 5823                     | 3·61             | 8·88                        | 12·49                     |
| April     | ... | ... | 5325                     | 3·65             | 8·89                        | 12·54                     |
| May       | ... | ... | 5953                     | 3·61             | 8·90                        | 12·51                     |
| June      | ... | ... | 5507                     | 3·56             | 8·91                        | 12·47                     |
| July      | ... | ... | 5354                     | 3·59             | 8·81                        | 12·40                     |
| August    | ... | ... | 3355                     | 3·68             | 8·84                        | 12·52                     |
| September | ... | ... | 5405                     | 3·78             | 8·91                        | 12·69                     |
| October   | ... | ... | 6312                     | 3·89             | 8·93                        | 12·82                     |
| November  | ... | ... | 6164                     | 3·84             | 8·92                        | 12·76                     |
| December  | ... | ... | 5737                     | 3·75             | 8·91                        | 12·66                     |
| 1910-1933 |     |     | 65383                    | 3·69             | 8·89                        | 12·58                     |

From this table it will be seen that the fat varies from its lowest figure of 3·56 per cent. in June to its highest figure of 3·89 per cent. in October. Thus, although it is an undoubted fact that the fat content of milk does tend to be lower in the late spring and early summer months the amount of such lowering has been greatly exaggerated by certain individuals. It is fairly obvious that the limits of the Sale of Milk Regulations are no hardship even in the months of May and June, and that, in fact, if they are in any way faulty, their fault lies in the direction of being too low.

The slight seasonal variation which is shown by an examination of the results given in the above table is far more likely to be due to the fact that the number of cows calving is not uniform from month to month throughout the year. The stage of lactation has a pronounced influence upon the composition of milk, particularly upon the fat content, as shown earlier in this report.

The freezing point of milk.—During the year, work on the freezing point test for milk has continued. More results and wider experience have been obtained which still further support the value of this test. The report for 1933 contains a full statement of the results obtained, supplementing those given in previous reports.

SAMPLES OF FOOD OTHER THAN MILK.—During the year, 2,279 samples other than milk have been examined. Of these, 36 or 1·6 per cent., have been returned as adulterated. Comparative figures for recent years are given in the table below.

PERCENTAGE OF ADULTERATION. SAMPLES OTHER THAN MILK, 1926—1933.  
(a) No. of samples. (b) No. adulterated. (c) Percentage of adulteration.

| YEAR. | FIRST QUARTER. |     |     | SECOND QUARTER. |     |     | THIRD QUARTER. |     |     | FOURTH QUARTER. |     |     | WHOLE YEAR. |     |     |
|-------|----------------|-----|-----|-----------------|-----|-----|----------------|-----|-----|-----------------|-----|-----|-------------|-----|-----|
|       | (a)            | (b) | (c) | (a)             | (b) | (c) | (a)            | (b) | (c) | (a)             | (b) | (c) | (a)         | (b) | (c) |
| 1926  | 512            | 6   | 1·2 | 519             | 3   | 0·6 | 430            | 8   | 1·9 | 578             | 4   | 0·7 | 2,039       | 21  | 1·0 |
| 1927  | 355            | 5   | 1·4 | 572             | 17  | 3·0 | 442            | 18  | 4·1 | 560             | 7   | 1·2 | 1,929       | 47  | 2·4 |
| 1928  | 436            | 5   | 1·1 | 582             | 28  | 4·8 | 484            | 6   | 1·2 | 660             | 12  | 1·8 | 2,162       | 51  | 2·4 |
| 1929  | 557            | 5   | 0·9 | 492             | 4   | 0·8 | 604            | 11  | 1·8 | 583             | 5   | 0·9 | 2,236       | 25  | 1·1 |
| 1930  | 533            | 10  | 1·9 | 509             | 10  | 2·0 | 413            | 6   | 1·5 | 583             | 3   | 0·5 | 2,038       | 29  | 1·4 |
| 1931  | 578            | 8   | 1·4 | 524             | 5   | 1·0 | 436            | 6   | 1·4 | 598             | 8   | 1·3 | 2,136       | 27  | 1·3 |
| 1932  | 577            | 9   | 1·6 | 566             | 2   | 3·5 | 437            | 4   | 0·9 | 547             | 2   | 0·4 | 2,127       | 17  | 0·8 |
| 1933  | 569            | 3   | 0·5 | 576             | 10  | 1·7 | 492            | 10  | 2·0 | 642             | 13  | 2·0 | 2,279       | 36  | 1·6 |
| Total | 4,117          | 51  | 1·2 | 4,340           | 79  | 1·8 | 3,738          | 69  | 1·8 | 4,751           | 54  | 1·1 | 16,946      | 253 | 1·5 |

ADULTERATED SAMPLES.—The tables following give a list of samples reported as adulterated during 1933—(a) Milk, (b) Samples other than Milk:—

(a) ADULTERATED SAMPLES OF MILK, 1933.

| No. of Sample.          | Nature of Adulteration. |                              |     |     | Action taken.           |     |     | Result of Prosecution. | Remarks.           |
|-------------------------|-------------------------|------------------------------|-----|-----|-------------------------|-----|-----|------------------------|--------------------|
| 16559 Km.D.             | ...                     | Deficient 6½% fat            | ... | ... | Further samples advised |     |     | ...                    | ...                |
| 52945 R.D.              | ...                     | Deficient 6½% fat            | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 92926 Wgn.D.            | ...                     | Deficient 10% fat            | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 52971 R.D.              | ...                     | Contained 2% added water     | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 52972 R.D.              | ...                     | Deficient 1% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 92953 Wgn.D.            | ...                     | Contained 3% added water     | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 52985 R.D.              | ...                     | Contained 4% added water     | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 52987 R.D.              | ...                     | Deficient 2% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 53001 R.D.              | ...                     | Contained 4% added water     | ... | ... | Do.                     | ... | ... | ...                    | } Same vendor.     |
| 53006 R.D.              | ...                     | Contained 3% added water     | ... | ... | Do.                     | ... | ... | ...                    |                    |
| 53007 R.D.              | ...                     | Contained 4% added water     | ... | ... | Do.                     | ... | ... | ...                    |                    |
| 85921 W.D.              | ...                     | Deficient 2% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 880 Westhoughton U.D.C. | ...                     | Deficient 2% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 16852 Km.D.             | ...                     | Deficient 2% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 16590 Km.D.             | ...                     | 7% added water               | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 20559 L.B.D.            | ...                     | Deficient 10% fat            | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 53023 R.D.              | ...                     | Deficient 2% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 92969 Wgn.D.            | ...                     | Deficient 2% solids-not-fat  | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 35777 L.D.              | ...                     | Deficient 6% fat             | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 35782 L.D.              | ...                     | Deficient 3½% solids-not-fat | ... | ... | Do.                     | ... | ... | ...                    | ...                |
| 75903 S.D.              | ...                     | Deficient 13% fat            | ... | ... | Caution                 | ... | ... | ...                    | See No. 75913 S.D. |



ADULTERATED SAMPLES OF MILK—*continued.*

| No. of Sample.             | Nature of Adulteration. |                                         |     | Action taken.           | Result of Prosecution.        | Remarks.                                  |
|----------------------------|-------------------------|-----------------------------------------|-----|-------------------------|-------------------------------|-------------------------------------------|
| 30449 C.D.                 | ...                     | Deficient 2% solids-not-fat             | ... | Further samples advised | ...                           | ...                                       |
| 30454 C.D.                 | ...                     | Deficient 6% fat and 4½% solids-not-fat | ... | Prosecution             | Fined £1 and £2 3s. 3d. costs | ...                                       |
| 75913 S.D.                 | ...                     | Deficient 13% fat                       | ... | Caution                 | ...                           | Taken on delivery to vendor of 75903 S.D. |
| 20578 L.B.D.               | ...                     | Deficient 6½% fat                       | ... | Further samples advised | ...                           | ...                                       |
| 81378 P.D.                 | ...                     | Deficient 23% fat                       | ... | Caution                 | ...                           | Appeal-to-cow low in fat                  |
| 10380 N.L.D.               | ...                     | Deficient 10% fat                       | ... | Further samples advised | ...                           | ...                                       |
| 47737 By.D.                | ...                     | Deficient 4% solids-not-fat             | ... | Do.                     | ...                           | ...                                       |
| 47753 By.D.                | ...                     | Contained 3% added water                | ... | Do.                     | ...                           | ...                                       |
| 47754 By.D.                | ...                     | Contained 3% added water                | ... | Do.                     | ...                           | ...                                       |
| 47764 By.D.                | ...                     | Deficient 10% fat                       | ... | Caution                 | ...                           | ...                                       |
| 59700 A.D.                 | ...                     | Deficient 2% solids-not-fat             | ... | Further samples advised | ...                           | ...                                       |
| 30466 C.D.                 | ...                     | Deficient 3½% solids-not-fat            | ... | Do.                     | ...                           | ...                                       |
| 24943 H.B.D.               | ...                     | Deficient 6½% fat                       | ... | Do.                     | ...                           | ...                                       |
| 24944 H.B.D.               | ...                     | Deficient 10% fat                       | ... | Do.                     | ...                           | ...                                       |
| 81381 P.D.                 | ...                     | Deficient 10% fat                       | ... | Do.                     | ...                           | ...                                       |
| 85965 W.D.                 | ...                     | Deficient 6½% fat                       | ... | Do.                     | ...                           | ...                                       |
| 85975 W.D.                 | ...                     | Deficient 13% fat                       | ... | Caution                 | ...                           | ...                                       |
| 10386 N.L.D.               | ...                     | Deficient 6½% fat                       | ... | Do.                     | ...                           | ...                                       |
| 85998 W.D.                 | ...                     | Deficient 2% solids-not-fat             | ... | Further samples advised | ...                           | ...                                       |
| 20605 L.B.D.               | ...                     | Deficient 10% fat                       | ... | Caution                 | ...                           | ...                                       |
| 20611 L.B.D.               | ...                     | Deficient 1% solids-not-fat             | ... | Further samples advised | ...                           | ...                                       |
| 893 West-houghton U.D.C.   | ...                     | Deficient 6½% fat                       | ... | Do.                     | ...                           | ...                                       |
| 41839 Bn.D.                | ...                     | Deficient 1% solids-not-fat             | ... | Do.                     | ...                           | ...                                       |
| 41841 Bn.D.                | ...                     | Deficient 10% fat                       | ... | Caution                 | ...                           | ...                                       |
| 83410 Ws.D.                | ...                     | Deficient 2% solids-not-fat             | ... | None                    | ...                           | See No. 83412 Ws.D.                       |
| 93044 Wgn.D.               | ...                     | Deficient 6% fat                        | ... | Caution                 | ...                           | ...                                       |
| 93046 Wgn.D.               | ...                     | Deficient 6% fat                        | ... | Do.                     | ...                           | ...                                       |
| 93051 Wgn.D.               | ...                     | Deficient 1% solids-not-fat             | ... | Do.                     | ...                           | ...                                       |
| 93054 Wgn.D.               | ...                     | Deficient 6% fat                        | ... | Do.                     | ...                           | ...                                       |
| 83412 Ws.D.                | ...                     | Deficient 3½% solids-not-fat            | ... | Do.                     | ...                           | On delivery to vendor of 83410 Ws.D.      |
| 16642 Km.D.                | ...                     | Deficient 13% fat                       | ... | Prosecution             | Dismissed                     | ...                                       |
| 41851 Bn.D.                | ...                     | Deficient 3½% solids-not-fat            | ... | Further samples advised | ...                           | ...                                       |
| 41852 Bn.D.                | ...                     | Deficient 3½% solids-not-fat            | ... | Do.                     | ...                           | ...                                       |
| 332 Lytham St. Anne's (B). | ...                     | Deficient 13% fat                       | ... | Vendor notified         | ...                           | Appeal-to-cow low in fat                  |
| 333 Lytham St. Anne's (B). | ...                     | Deficient 13% fat                       | ... | Do.                     | ...                           | Do.                                       |
| 47788 By.D.                | ...                     | Deficient 2% solids-not-fat             | ... | Further samples advised | ...                           | ...                                       |
| 47796 By.D.                | ...                     | Deficient 16½% fat                      | ... | Do.                     | ...                           | ...                                       |

ADULTERATED SAMPLES OF MILK—*continued.*

| No. of Sample.           | Nature of Adulteration.                              | Action taken.           | Result of Prosecution. | Remarks.                                |
|--------------------------|------------------------------------------------------|-------------------------|------------------------|-----------------------------------------|
| 53095 R.D.               | Deficient 6% fat                                     | Further samples advised | ...                    | ...                                     |
| 59722 A.D.               | Contained 4% added water and 0.1% of Sodium Chloride | Caution                 | ...                    | } Same Vendor                           |
| 59723 A.D.               | Contained 4% added water and 0.1% of Sodium Chloride | Do.                     | ...                    |                                         |
| 59724 A.D.               | Deficient 6½% fat                                    | Further samples advised | ...                    |                                         |
| 14255 G.D.               | Deficient 10% fat                                    | Caution                 | ...                    | } Same Vendor. Appeal-to-cow low in fat |
| 14256 G.D.               | Deficient 6% fat                                     | Do.                     | ...                    |                                         |
| 14259 G.D.               | Deficient 13% fat                                    | Do.                     | ...                    |                                         |
| 86019 W.D.               | Contained 5% added water                             | Further samples advised | ...                    | ...                                     |
| 1 Abram U.D.C.           | Deficient 6% fat                                     | ...                     | ...                    | ...                                     |
| 65594 M.D.               | Deficient 16% fat                                    | Prosecution             | Fined £2               | } Costs £4 6s. 3d.                      |
| 65595 M.D.               | Deficient 16% fat                                    | Do.                     | Fined £2               |                                         |
| 83418 Ws.D.              | Deficient 1% solids-not-fat                          | Further samples advised | ...                    |                                         |
| 75988 S.D.               | Deficient 3½% solids-not-fat                         | Do.                     | ...                    | ...                                     |
| 75991 S.D.               | Deficient 13% fat                                    | Caution                 | ...                    | ...                                     |
| 10400 N.L.D.             | Deficient 6% fat                                     | Further samples advised | ...                    | ...                                     |
| 12414 S.L.D.             | Deficient 5½% solids-not-fat                         | Prosecution             | Fined £3               | Costs £3 14s. 4d.                       |
| 76017 S.D.               | Deficient 6% fat                                     | Caution                 | ...                    | ...                                     |
| 76021 S.D.               | Deficient 6% fat                                     | Do.                     | ...                    | ...                                     |
| 76031 S.D.               | Deficient 10% fat                                    | Do.                     | ...                    | ...                                     |
| 53134 R.D.               | Deficient 6% fat                                     | Do.                     | ...                    | ...                                     |
| 907 West-houghton U.D.C. | Deficient 1% solids-not-fat                          | ...                     | ...                    | ...                                     |
| 908 West-houghton U.D.C. | Deficient 3% fat and 1% solids-not-fat               | ...                     | ...                    | ...                                     |
| 35879 L.D.               | Deficient 3½% solids-not-fat                         | Further samples advised | ...                    | ...                                     |
| 65613 M.D.               | Deficient 3% fat and 1% solids-not-fat               | Do.                     | ...                    | ...                                     |
| 65614 M.D.               | Deficient 3% fat and 1% solids-not-fat               | Do.                     | ...                    | ...                                     |
| 65616 M.D.               | Deficient 3½% solids-not-fat                         | Do.                     | ...                    | ...                                     |
| 30501 C.D.               | Deficient 10% fat                                    | Caution                 | ...                    | ...                                     |
| 139 Litherland U.D.C.    | Deficient 6% fat                                     | ...                     | ...                    | Informal sample                         |
| 145 Litherland U.D.C.    | Deficient 3½% solids-not-fat                         | ...                     | ...                    | Do.                                     |
| 93100 Wgn. D.            | Deficient 6% fat                                     | Caution                 | ...                    | ...                                     |
| 33414 Rs.D.              | 3% added water                                       | Do.                     | ...                    | ...                                     |
| 10416 N.L.D.             | Deficient 10% fat                                    | Do.                     | ...                    | ...                                     |
| 10419 N.L.D.             | Deficient 10% fat                                    | Do.                     | ...                    | ...                                     |
| 65631 M.D.               | Deficient 2% solids-not-fat                          | Further samples advised | ...                    | ...                                     |
| 65633 M.D.               | Deficient 4% solids-not-fat                          | Do.                     | ...                    | ...                                     |
| 53150 R.D.               | Deficient 2% solids-not-fat                          | Do.                     | ...                    | ...                                     |



ADULTERATED SAMPLES OF MILK—*continued.*

| No. of Sample.             | Nature of Adulteration.                    | Action taken.           | Result of Prosecution.        | Remarks.                        |
|----------------------------|--------------------------------------------|-------------------------|-------------------------------|---------------------------------|
| 53157 R.D. ...             | Contained 3% added water ...               | Further samples advised | ...                           | ...                             |
| 47838 By.D. ...            | Deficient 2% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 10425 N.L.D. ...           | Deficient 10% fat ...                      | Do. ...                 | ...                           | ...                             |
| 20652 L.B.D. ...           | Deficient 16% fat ...                      | Do. ...                 | ...                           | ...                             |
| 33424 Rs.D. ...            | Deficient 6½% fat ...                      | Do. ...                 | ...                           | ...                             |
| 25032 H.B.D. ...           | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 25033 H.B.D. ...           | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 65654 M.D. ...             | Deficient 2% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 76036 S.D. ...             | Deficient 3% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 76037 S.D. ...             | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 3 Abram U.D.C.             | Deficient 23% fat ...                      | Caution ...             | ...                           | Appeal-to-cow sample low in fat |
| 4 Abram U.D.C.             | Deficient 16% fat ...                      | Do. ...                 | ...                           | ...                             |
| 148 Litherland U.D.C.      | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 343 Lytham St. Anne's (B). | Deficient 9% solids-not-fat ...            | Prosecution ...         | Fined £5, including costs     | ...                             |
| 346 Lytham St. Anne's (B). | Deficient 1% solids-not-fat ...            | Caution ...             | ...                           | ...                             |
| 347 Lytham St. Anne's (B). | Deficient 10% fat ...                      | Do. ...                 | ...                           | ...                             |
| 76069 S.D. ...             | Deficient 23% fat ...                      | Prosecution ...         | Fined £2 and £2 2s. 7d. costs | ...                             |
| 76071 S.D. ...             | Deficient 13% fat ...                      | Do. ...                 | Fined £5 and £2 3s. costs     | ...                             |
| 53172 R.D. ...             | Deficient 3% fat and 1% solids-not-fat ... | Further samples advised | ...                           | ...                             |
| 53174 R.D. ...             | Deficient 2% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 35926 L.D. ...             | Deficient 13% fat ...                      | Caution ...             | ...                           | ...                             |
| 14282 G.D. ...             | Deficient 13% fat ...                      | Do. ...                 | ...                           | ...                             |
| 12455 S.L.D. ...           | Deficient 3% fat ...                       | Further samples advised | ...                           | ...                             |
| 12458 S.L.D. ...           | Deficient 13% fat ...                      | Do. ...                 | ...                           | ...                             |
| 12459 S.L.D. ...           | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 65706 M.D. ...             | Deficient 2% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 65709 M.D. ...             | Deficient 2% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 83456 Ws.D. ...            | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 76094 S.D. ...             | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 83457 Ws.D. ...            | Deficient 10% fat ...                      | Do. ...                 | ...                           | ...                             |
| 83458 Ws.D. ...            | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 12466 S.L.D. ...           | Deficient 1% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 12468 S.L.D. ...           | Contained 3% added water ...               | Do. ...                 | ...                           | ...                             |
| 65733 M.D. ...             | Deficient 4½% solids-not-fat ...           | Do. ...                 | ...                           | ...                             |
| 47876 By.D. ...            | Deficient 6% fat ...                       | Do. ...                 | ...                           | ...                             |
| 16716 Km.D. ...            | Deficient 2% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 20691 L.B.D. ...           | Contained 3% added water ...               | Do. ...                 | ...                           | ...                             |
| 20692 L.B.D. ...           | Deficient 1% solids-not-fat ...            | Do. ...                 | ...                           | ...                             |
| 20695 L.B.D. ...           | Deficient 10% solids-not-fat ...           | Prosecution ...         | Dismissed on warranty         | See Nos. 20703 and 20704 L.B.D. |

ADULTERATED SAMPLES OF MILK—*continued.*

| No. of Sample.          | Nature of Adulteration.                | Action taken.           | Result of Prosecution.        | Remarks.                           |
|-------------------------|----------------------------------------|-------------------------|-------------------------------|------------------------------------|
| 20703 L.B.D. ...        | Deficient 1% solids-not-fat ...        | None ...                | ...                           | On delivery to vendor of No. 20695 |
| 20704 L.B.D. ...        | Contained 2% added water ...           | Do. ...                 | ...                           | Do.                                |
| 47899 By.D. ...         | Deficient 2% solids-not-fat ...        | Further samples advised | ...                           | ...                                |
| 65772 M.D. ...          | Deficient 5½% solids-not-fat ...       | Prosecution ...         | Fined 10s. 6d. costs £2 4s.   | ...                                |
| 934 Westthornton U.D.C. | Deficient 2% solids-not-fat ...        | Caution ...             | ...                           | ...                                |
| 10455 N.L.D. ...        | Deficient 6% fat ...                   | Further samples advised | ...                           | ...                                |
| 12483 S.L.D. ...        | Deficient 23% fat ...                  | Prosecution ...         | Pay costs, £2 7s. 1d.         | ...                                |
| 41981 Bn.D. ...         | Deficient 7% solids-not-fat ...        | Do. ...                 | Pay costs, £2 17s. 1d.        | ...                                |
| 35984 L.D. ...          | Deficient 7% solids-not-fat ...        | Do. ...                 | Fined £1 costs, £4 5s. 9d.    | ...                                |
| 53274 R.D. ...          | Deficient 3½% solids-not-fat ...       | Further samples advised | ...                           | ...                                |
| 47927 By.D. ...         | Deficient 2% solids-not-fat ...        | Do. ...                 | ...                           | ...                                |
| 65830 M.D. ...          | Deficient 3½% solids-not-fat ...       | Do. ...                 | ...                           | ...                                |
| 65831 M.D. ...          | Deficient 3½% solids-not-fat ...       | Do. ...                 | ...                           | ...                                |
| 76183 S.D. ...          | Deficient 3½% solids-not-fat ...       | Do. ...                 | ...                           | ...                                |
| 76189 S.D. ...          | Deficient 2% solids-not-fat ...        | Do. ...                 | ...                           | ...                                |
| 47946 By.D. ...         | Contained 5% added water ...           | Do. ...                 | ...                           | ...                                |
| 47947 By.D. ...         | Contained 3% added water ...           | Do. ...                 | ...                           | ...                                |
| 53290 R.D. ...          | Contained 6% added water ...           | Prosecution ...         | Fined £2                      | } Costs £3 14s.                    |
| 53291 R.D. ...          | Deficient 2% solids-not-fat and 3% fat | Do. ...                 | Fined £2                      |                                    |
| 20741 L.B.D. ...        | Deficient 23% fat ...                  | Do. ...                 | Fined £5 and £2 2s. 7d. costs | ...                                |
| 67 Middleton (B).       | Deficient 2% solids-not-fat ...        | Caution ...             | ...                           | ...                                |
| 76212 S.D. ...          | Deficient 4½% solids-not-fat ...       | Further samples advised | ...                           | ...                                |
| 76231 S.D. ...          | Deficient 3½% solids-not-fat ...       | Prosecution ...         | Fined £10                     | } Costs £4 6s. 9d.                 |
| 76232 S.D. ...          | Deficient 7% solids-not-fat ...        | Do. ...                 | Fined £10                     |                                    |
| 76235 S.D. ...          | Deficient 5½% solids-not-fat ...       | Do. ...                 | Withdrawn                     | See No. 76251                      |
| 16767 Km.D. ...         | Deficient 10% fat ...                  | Caution ...             | ...                           | ...                                |
| 76251 S.D. ...          | Deficient 5½% solids-not-fat ...       | Prosecution ...         | Fined £5 and £4 7s. costs     | On delivery, <i>re</i> No. 76235   |
| 59862 A.D. ...          | Deficient 13% fat ...                  | Caution ...             | ...                           | Sample from same vendor very rich  |
| 47953 By.D. ...         | Deficient 2% solids-not-fat ...        | Further samples advised | ...                           | ...                                |
| 47954 By.D. ...         | Deficient 3½% solids-not-fat ...       | Do. ...                 | ...                           | ...                                |

## (b) ADULTERATED SAMPLES OTHER THAN MILK, 1933.

| No. of Sample.    | Description.                   | Formal or Informal. | Nature of Adulteration.                                      | Action taken.                          | Remarks.                   |
|-------------------|--------------------------------|---------------------|--------------------------------------------------------------|----------------------------------------|----------------------------|
| 10451 N.L.D.      | Cream ... ..                   | Informal            | Deficient 5% solids-not-fat ...                              | Further samples advised                | ...                        |
| 10463 N.L.D.      | Do. ... ..                     | Do. ...             | Deficient 9% solids-not-fat ...                              | Do. ...                                | ...                        |
| 57 Middleton (B). | Do. ... ..                     | Do. ...             | Contained $2\frac{1}{2}$ grains of boric acid per pint       | Formal sample purchased                | See No. 58                 |
| 58 Middleton (B). | Do. ... ..                     | Formal ...          | Contained 2 grains of boric acid per pint                    | Further samples advised                | Same vendor as No. 57      |
| 65766 M.D.        | Custard Powder ...             | Informal            | Consisted of Egg Substitute ...                              | Do. ...                                | ...                        |
| 41973 Bn.D.       | Dripping (Beef) ...            | Do. ...             | Consisted of 100% hog fat ...                                | Formal sample purchased                | See No. 41976              |
| 41976 Bn.D.       | Do. ... ..                     | Formal ...          | Consisted of 100% hog fat ...                                | Caution ...                            | Same vendor as No. 41973   |
| 59778 A.D.        | Gravy Browning                 | Informal            | Contained $\frac{3}{4}$ grain of copper per pound            | Further samples advised                | ...                        |
| 36016 L.D.        | Jam (apricot) ...              | Do. ...             | Deficient 30% fruit ... ..                                   | Do. ...                                | ...                        |
| 76006 S.D.        | Jam (black-currant)            | Do. ...             | Deficient 50% fruit ... ..                                   | Formal sample advised                  | ...                        |
| 47822 By.D.       | Do. ... ..                     | Do. ...             | Sample unsatisfactory, but too small for complete analysis   | Further sample advised                 | ...                        |
| 47870 By.D.       | Do. ... ..                     | Do. ...             | Contained 25% apple jam and deficient of 1.5% soluble solids | Formal sample purchased                | See No. 47874 By.D.        |
| 47874 By.D.       | Do. ... ..                     | Formal ...          | Contained 30% apple jam and deficient of 2% soluble solids   | Prosecution ...                        | Fined 5s. (costs included) |
| 75859 S.D.        | Jam (raspberry) ...            | Informal            | Deficient of 3% of the minimum amount of soluble solids      | Formal sample purchased                | See No. 75869 S.D.         |
| 75869 S.D.        | Do. ... ..                     | Formal ...          | Deficient of 4% of the minimum amount of soluble solids      | Manufacturers asked for an explanation | ...                        |
| 20635 L.B.D.      | Do. ... ..                     | Informal            | Contained 25% apple jam ...                                  | Formal sample purchased                | See No. 20649 L.B.D.       |
| 20649 L.B.D.      | Do. ... ..                     | Formal ...          | Contained 20% apple jam ...                                  | Prosecution ...                        | Pay costs £3 9s. 3d.       |
| 47873 By.D.       | Jam (strawberry)               | Do. ...             | Contained 30% apple jam ...                                  | Do. ...                                | Fined 5s. (costs included) |
| 14261 G.D.        | Jelly (wine) ...               | Informal            | Contained not more than 0.1% of absolute alcohol             | Caution ...                            | ...                        |
| 53160 R.D.        | Lemonade Powder                | Do. ...             | Contained tartaric acid in place of citric acid              | None ... ..                            | ...                        |
| 53201 R.D.        | Do. ... ..                     | Do. ...             | Contained tartaric acid in place of citric acid              | Do. ... ..                             | ...                        |
| 35933 L.D.        | Do. ... ..                     | Do. ...             | Contained tartaric acid in place of citric acid              | Do. ... ..                             | ...                        |
| 35871 L.D.        | Mustard ... ..                 | Do. ...             | Contained much fungus unsuitable for human food              | Caution ...                            | ...                        |
| 76199 S.D.        | Do. ... ..                     | Do. ...             | Contained 10% wheat flour ...                                | Formal sample purchased                | See No. 76208              |
| 76208 S.D.        | Do. ... ..                     | Formal ...          | Contained 12% wheat flour ...                                | Caution ...                            | Same vendor as No. 76199   |
| 65865 M.D.        | Quinine, Ammoniated Tablets of | Informal            | Deficient 10% quinine and 98% ammonia                        | Do. ... ..                             | ...                        |
| 59682 A.D.        | Rum and coffee ...             | Do. ...             | Contained only 2.3% of rum and 30% of coffee extract         | None ... ..                            | ...                        |



ADULTERATED SAMPLES OTHER THAN MILK—*continued.*

| No. of Sample.    | Description.        | Formal or Informal. | Nature of Adulteration.                                                  | Action taken.           | Remarks.                        |
|-------------------|---------------------|---------------------|--------------------------------------------------------------------------|-------------------------|---------------------------------|
| 76203 S.D.        | Sausages ...        | Informal            | Contained 120 parts of sulphur dioxide per million                       | Formal sample purchased | Formal sample genuine           |
| 65835 M.D.        | Sulphur tablets ... | Do. ...             | Contained no lime juice ...                                              | Caution ...             | Labelled lime juice and sulphur |
| 65521 M.D.        | Tartar, Cream of... | Do. ...             | Contained 1% Sodium bicarbonate                                          | Do. ...                 | ...                             |
| 93064 Wgn. D.     | Do. ...             | Do. ...             | Contained 1.4% of Oil ...                                                | Formal sample purchased | See No. 93081 Wgn.D.            |
| 93081 Wgn. D.     | Do. ...             | Formal ...          | Contained 1.4% of oil having the characteristics of rancid vegetable oil | Caution ...             | ...                             |
| 53227 R.D.        | Do. ...             | Informal            | Contained 27% of tartaric acid                                           | Do. ...                 | ...                             |
| 20642 L.B.D.      | Tartaric Acid ...   | Do. ...             | Consisted of Cream of Tartar...                                          | Formal sample advised   | ...                             |
| 81 Middleton (B). | Whisky ...          | Do. ...             | Contained 4% excess of water                                             | Do. ...                 | ...                             |
| 82 Middleton (B). | Do. ...             | Do. ...             | Contained 8% excess of water                                             | Do. ...                 | ...                             |

PROSECUTIONS.—During the year legal proceedings have been instituted in 25 cases arising out of samples purchased under the Food and Drugs (Adulteration) Act, 1928. In 22 of the cases penalties were inflicted amounting in all to £102 10s. 2d. In one case the proceedings were withdrawn, in another case the vendor successfully pleaded a warranty whilst in a third case the proceedings were dismissed. Particulars are given in the following table:—

## PROSECUTIONS ARISING OUT OF SAMPLES PURCHASED DURING THE YEAR 1933.

| POLICE DIVISION.  | Samples reported for Prosecution. | Number of Prosecutions. | Convicted or Ordered to Pay Costs. | Dismissals. | Fines and Costs. |
|-------------------|-----------------------------------|-------------------------|------------------------------------|-------------|------------------|
|                   |                                   |                         |                                    |             | £ s. d.          |
| Lonsdale North... | 0                                 | 0                       | 0                                  | 0           | ...              |
| Lonsdale South... | 2                                 | 2                       | 2                                  | 0           | 9 1 5            |
| Garstang...       | 0                                 | 0                       | 0                                  | 0           | ...              |
| Kirkham...        | 1                                 | 1                       | 0                                  | 1           | ...              |
| Blackburn Lower   | 5                                 | 4                       | 3                                  | 1*          | 12 14 7          |
| Blackburn Higher  | 0                                 | 0                       | 0                                  | 0           | ...              |
| Church ...        | 1                                 | 2†                      | 2                                  | 0           | 3 7 3            |
| Rossendale ...    | 0                                 | 0                       | 0                                  | 0           | ...              |
| Leyland ...       | 1                                 | 1                       | 1                                  | 0           | 5 5 9            |
| Bolton ...        | 2                                 | 1                       | 1                                  | 0           | 2 17 1           |
| Bury ...          | 2                                 | 2                       | 2                                  | 0           | 10 0             |
| Rochdale...       | 2                                 | 2                       | 2                                  | 0           | 7 14 0           |
| Ashton-under-Lyne | 0                                 | 0                       | 0                                  | 0           | ...              |
| Manchester ...    | 3                                 | 3                       | 3                                  | 0           | 11 0 9           |
| Seaforth ...      | 7                                 | 6‡                      | 5                                  | 0           | 44 19 4          |
| Prescot ...       | 0                                 | 0                       | 0                                  | 0           | ...              |
| Widnes ...        | 0                                 | 0                       | 0                                  | 0           | ...              |
| Warrington ...    | 0                                 | 0                       | 0                                  | 0           | ...              |
| Wigan ...         | 1                                 | 0                       | 0                                  | 0           | ...              |
| County Police ... | 27                                | 24                      | 21                                 | 2           | 97 10 2          |
| Local Authorities | 1                                 | 1                       | 1                                  | 0           | 5 0 0            |
| Total ...         | 28                                | 25                      | 22                                 | 2           | 102 10 2         |

\* On Warranty.

† One for no name and address on can.

‡ There was one withdrawal in this Division.

WATER AND EFFLUENT ANALYSES.—One hundred and two samples of water and effluent have been submitted during the year for examination. Of these, 73 have been examined as to their general suitability for drinking purposes, 18 have been tested for lead or in other special ways, whilst 11 have been effluents.

The 91 samples of water were received from the following Authorities :—

Boroughs.—Darwen 13, Haslingden 1, Morecambe and Heysham 4, and Widnes 6.

Urban Districts.—Billinge and Winstanley 7, Fulwood 1, Ormskirk 3, and Walton-le-Dale 7.

Rural Districts.—Chorley 1, Fylde 4, Lancaster 5, Lunesdale 3, Preston 8, Warrington 3, and Whiston 2.

County Education Committee 6.

County Institutions 17.

The results obtained on the 73 samples examined as to their general suitability for drinking purposes are set out in the following table :—

| Source.               | Fit. | Doubtful. | Unfit. | Total. |
|-----------------------|------|-----------|--------|--------|
| Public Supply ... ..  | 17   | 2         | 0      | 19     |
| Shallow Well ... ..   | 8    | 2         | 0      | 10     |
| Deep Well ... ..      | 8    | 10        | 2      | 20     |
| Pit Shaft ... ..      | 2    | 2         | 0      | 4      |
| Spring ... ..         | 7    | 3         | 0      | 10     |
| Upland Surface ... .. | 4    | 2         | 4      | 10     |
| Total ... ..          | 46   | 21        | 6      | 73     |

In the following table the whole of the samples submitted to general examination, received during the last 22 years, have been grouped. In all, 1,095 samples have been examined, and of these 22·4 per cent. have been of doubtful quality, whilst, in addition, 18·6 per cent. have been definitely unfit. Of the total samples examined, therefore, not more than 58·5 per cent. have been returned as entirely suitable for drinking purposes.

#### WATERS, 1912-1933.

| Source.            | Total Samples. | Fit.            |             | Doubtful.       |             | Unfit.          |             |
|--------------------|----------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
|                    |                | No. of Samples. | Percentage. | No. of Samples. | Percentage. | No. of Samples. | Percentage. |
| Public Supplies... | 167            | 159             | 95·3        | 7               | 4·1         | 1               | 0·6         |
| Deep Wells ...     | 150            | 75              | 50·0        | 52              | 34·7        | 23              | 15·3        |
| Shallow Wells ...  | 372            | 126             | 33·9        | 112             | 30·1        | 134             | 36·0        |
| Springs ... ..     | 156            | 113             | 72·4        | 31              | 19·9        | 12              | 7·7         |
| Upland Surface...  | 72             | 54              | 75·0        | 12              | 16·7        | 6               | 8·3         |
| Miscellaneous ...  | 178            | 119             | 66·9        | 31              | 17·4        | 28              | 15·7        |
| Totals... ..       | 1,095          | 646             | 59·0        | 245             | 22·4        | 204             | 18·6        |

The 11 samples of effluent examined in 1933 were received from the following :—

River Alt Catchment Board 3, County Education Committee 7, and Preston R.D.C. 1.

**ACTION BY TOWN AND DISTRICT COUNCILS UNDER THE FOOD AND DRUGS (ADULTERATION) Act.**—The number of samples of food and drugs taken in 1933 by the five Boroughs in the Administrative County which are not within the area of the County Analyst were :—Accrington (B) 60 samples, Ashton-under-Lyne (B) 122 samples, Baeup (B) 25 samples, Clitheroe (B) 32 samples, and Lancaster (B) 144 samples. Other Local Authorities obtaining samples and forwarding them to the County Analyst were :—Darwen (B) 9 samples, Lytham St. Anne's (B) 84 samples, Middleton (B) 105 samples, Abram 14 samples, Litherland 18 samples, Westhoughton 68 samples.

### PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

**Notifications of Infectious Diseases.—Removals to Hospitals, &c.**—Table 6, pages 159 to 172, gives the number of cases of infectious disease notified in each urban and rural district in the Administrative County during the year 1933, under the Infectious Disease (Notification) Act, 1889, the Public Health (Tuberculosis) Regulations, and under various other Regulations and Orders. It also shows the number of cases removed to isolation hospitals, the number of deaths in hospital, etc.

Reference to the survey of the hospital accommodation of the Administrative County as required by Section 57 of the Local Government Act, 1929, has been made on page 39. The survey report deals with the hospital problem in the light of present-day research and with the changing outlook on this question as affects certain infectious diseases. The final conclusions on the County hospital service cannot be arrived at until the observations of the various town and district Councils are received by the County Council.







TABLE 6—continued.

| DISTRICT.             | Nature of Hospital Accommodation.                                               |                                                                                 | Infectious Diseases.                                                                          |                |                                          |                                        |                          |                            |                              |                       |                      |                            |                          |            |                        |             |                         |                              |                              |              | Disinfection.                       |                 | No. of houses or rooms disinfect. |        |     |     |
|-----------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|--------------------------|----------------------------|------------------------------|-----------------------|----------------------|----------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|--------------|-------------------------------------|-----------------|-----------------------------------|--------|-----|-----|
|                       |                                                                                 |                                                                                 | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                          |                            |                              |                       |                      |                            |                          |            |                        |             |                         |                              |                              |              |                                     |                 |                                   |        |     |     |
|                       | For ordinary infectious diseases.                                               | For Smallpox.                                                                   | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia. | Acute Influenza Pneumonia. | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephallitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diphtheria (under 2 years).       | Total. |     |     |
| Ashton-under-Lyne (B) | 20 beds ...                                                                     | ...                                                                             | 73                                                                                            | 16             | ...                                      | 140                                    | 53                       | 2                          | 1+                           | ...                   | ...                  | ...                        | 1                        | ...        | 3                      | 22          | 57                      | 24                           | ...                          | ...          | ...                                 | ...             | ...                               | ...    | 343 |     |
| Audenshaw             | 2 beds, Hyde Borough Hospital                                                   | Joint at Hartshead—12 beds                                                      | ...                                                                                           | 41             | ...                                      | ...                                    | ...                      | 3                          | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | 37                           | 9                            | ...          | ...                                 | ...             | ...                               | ...    | 187 |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... | ... |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... | ... |
| Limehurst (R)         | Arrangement with Oldham C.B. for cases of diphtheria                            | Joint at Hartshead—12 beds                                                      | 14                                                                                            | 2              | ...                                      | 13                                     | 8                        | ...                        | ...                          | ...                   | ...                  | ...                        | 1                        | ...        | 1                      | 3           | 11                      | 4                            | ...                          | ...          | ...                                 | ...             | ...                               | ...    | 24  |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| *Aspull               | At Wigan C.B. Hospital by arrangement                                           | Arrangement with Bury Joint                                                     | 21                                                                                            | 1              | ...                                      | 48                                     | 12                       | 2                          | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | 7                       | 8                            | 5                            | ...          | ...                                 | ...             | ...                               | ...    | 30  |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| Atherton              | ...                                                                             | Arrangement with Bury Joint                                                     | 73                                                                                            | 19             | ...                                      | 37                                     | 16                       | 9                          | ...                          | 1                     | ...                  | ...                        | ...                      | ...        | ...                    | ...         | 11                      | 19                           | 9                            | ...          | ...                                 | ...             | ...                               | ...    | 168 |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| Golborne              | ...                                                                             | Arrangement with Bury Joint                                                     | 5                                                                                             | 7              | ...                                      | 16                                     | 7                        | 1                          | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | 3                       | 3                            | 3                            | ...          | ...                                 | ...             | ...                               | ...    | 42  |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| Leigh (B)             | Joint at Astley for all purposes :— Iron building, 32 beds, at Calderhurst Lane | Joint at Astley for all purposes :— Iron building, 32 beds, at Calderhurst Lane | 55                                                                                            | 16             | 1                                        | 107                                    | 36                       | 5                          | 3                            | 1                     | ...                  | ...                        | ...                      | ...        | ...                    | 5           | 20                      | 42                           | 20                           | ...          | 25                                  | ...             | ...                               | ...    | 130 |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| Tyldesley             | 1                                                                               | Joint at Astley for all purposes :— Iron building, 32 beds, at Calderhurst Lane | 9                                                                                             | 5              | ...                                      | 21                                     | 14                       | 2                          | 3                            | ...                   | ...                  | ...                        | 2                        | ...        | 2                      | 9           | 13                      | 4                            | ...                          | ...          | ...                                 | ...             | ...                               | ...    | 55  |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| aLeigh (R)            | 2                                                                               | Joint at Astley for all purposes :— Iron building, 32 beds, at Calderhurst Lane | 10                                                                                            | 4              | 1                                        | 12                                     | 10                       | ...                        | 1                            | 1                     | ...                  | ...                        | ...                      | ...        | ...                    | 1           | 7                       | 5                            | 4                            | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |
| ...                   | ...                                                                             |                                                                                 | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                        | ...                          | ...                   | ...                  | ...                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                               | ...    | ... |     |

TABLE 6—Continued

| DISTRICT.                | Nature of Hospital Accommodation.                               |                                  | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                             |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              |              | Disinfection.                       |                 | No. of houses or rooms disinfectcd. |                            |        |
|--------------------------|-----------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|-----------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|--------------|-------------------------------------|-----------------|-------------------------------------|----------------------------|--------|
|                          | For ordinary infectious diseases.                               | For Smallpox.                    | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Group). | Enteric Fever (including Paratyphoid). | Acute Influenzal Pneumonia. | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. |                                     | Diarrhoea (under 2 years). | Total. |
| Bacup (B)                | Arrangement with Bury Joint Hospital Board                      | Joint at Todmorden—32 beds       | (a)                                                                                           | 34             | 8                                        | ..                                     | 33                          | 1                            | 1                     | 4                    | 2                         | ..                       | ..         | ..                     | 5           | 12                      | 17                           | 12                           | ..           | ..                                  | ..              | 1                                   | ..                         | 129    |
| (b)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | 14                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 14                      | 2                            | ..                           | ..           | ..                                  | ..              | 2                                   | 34                         |        |
| (c)                      |                                                                 |                                  | 7                                                                                             | 2              | ..                                       | ..                                     | ..                          | ..                           | ..                    | 1                    | 4                         | 2                        | ..         | ..                     | ..          | 1                       | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 18     |
| (d)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 1      |
| Barrowford               | At Nelson Borough Hospitals by arrangement                      |                                  | (a)                                                                                           | 3              | 4                                        | ..                                     | 11                          | 1                            | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | 2           | 2                       | 2                            | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 23     |
| (b)                      |                                                                 |                                  | ..                                                                                            | 3              | ..                                       | 3                                      | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 1                       | 1                            | ..                           | ..           | ..                                  | ..              | 1                                   | 9                          |        |
| (c)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 1      |
| (d)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 1      |
| *Billinge and Winstanley | Nil                                                             | Old School—4 beds                | (a)                                                                                           | 2              | 3                                        | ..                                     | 8                           | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | 1           | 2                       | 2                            | 5                            | ..           | ..                                  | ..              | ..                                  | ..                         | 21     |
| (b)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | 6                                      | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 3                       | 4                            | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 14     |
| (c)                      |                                                                 |                                  | ..                                                                                            | ..             | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | ..     |
| (d)                      |                                                                 |                                  | ..                                                                                            | ..             | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | ..     |
| *Blackrod ...            | Nil                                                             | ...                              | (a)                                                                                           | 21             | 2                                        | ..                                     | 8                           | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | 2           | 2                       | 2                            | 3                            | ..           | ..                                  | ..              | ..                                  | ..                         | 36     |
| (b)                      |                                                                 |                                  | ..                                                                                            | ..             | ..                                       | 3                                      | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 2                       | 1                            | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 6      |
| (c)                      |                                                                 |                                  | 14                                                                                            | 2              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 2                       | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 18     |
| (d)                      |                                                                 |                                  | ..                                                                                            | ..             | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | ..     |
| *Horwich ..              | Joint at Fall Birch, Horwich, 48 beds                           | Bury and District Joint Hospital | (a)                                                                                           | 152            | 5                                        | ..                                     | 25                          | 1                            | ..                    | ..                   | ..                        | ..                       | ..         | 1                      | 2           | 11                      | 13                           | 13                           | ..           | 87                                  | 198             | 5                                   | ..                         | 500    |
| (b)                      |                                                                 |                                  | 2                                                                                             | ..             | ..                                       | 6                                      | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | 8                            | 1                            | ..           | ..                                  | 1               | 2                                   | 20                         |        |
| (c)                      |                                                                 |                                  | 135                                                                                           | 5              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 140    |
| (d)                      |                                                                 |                                  | 1                                                                                             | ..             | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 1      |
| *Westhoughton ...        | At Manchester C.B.                                              |                                  | (a)                                                                                           | 35             | 14                                       | 1                                      | 21                          | 1                            | ..                    | ..                   | ..                        | ..                       | 1          | 5                      | 12          | 8                       | 8                            | 8                            | ..           | ..                                  | ..              | ..                                  | ..                         | 106    |
| (b)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | 14                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | 1                      | ..          | ..                      | 6                            | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 21     |
| (c)                      |                                                                 |                                  | 31                                                                                            | 14             | 1                                        | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 47     |
| (d)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 1      |
| Brierfield               |                                                                 |                                  | (a)                                                                                           | 70             | 12                                       | ..                                     | 33                          | 4                            | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | 5           | 6                       | 3                            | 3                            | ..           | ..                                  | ..              | ..                                  | ..                         | 133    |
| (b)                      |                                                                 |                                  | ..                                                                                            | 1              | ..                                       | 13                                     | 1                           | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 4                       | ..                           | ..                           | ..           | ..                                  | ..              | 2                                   | 1                          | 26     |
| (c)                      |                                                                 |                                  | 30                                                                                            | 12             | ..                                       | ..                                     | 2                           | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 44     |
| (d)                      |                                                                 |                                  | ..                                                                                            | ..             | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | ..     |
| Padiham ...              | Joint with Burnley C.B. for all purposes (Kibble Bank) 112 beds | (Crown Point) 30 beds            | (a)                                                                                           | 44             | 14                                       | 2                                      | 17                          | 1                            | ..                    | 1                    | ..                        | 1                        | ..         | 1                      | 6           | 15                      | 2                            | 2                            | ..           | 35                                  | ..              | ..                                  | ..                         | 139    |
| (b)                      |                                                                 |                                  | ..                                                                                            | 4              | ..                                       | 6                                      | 1                           | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 6                       | 3                            | ..                           | ..           | ..                                  | 1               | 3                                   | 24                         |        |
| (c)                      |                                                                 |                                  | 33                                                                                            | 13             | 2                                        | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | 1          | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 49     |
| (d)                      |                                                                 |                                  | ..                                                                                            | 3              | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | 1          | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 4      |
| Burnley (R)              |                                                                 |                                  | (a)                                                                                           | 72             | 19                                       | 1                                      | 22                          | 2                            | ..                    | ..                   | ..                        | ..                       | ..         | 1                      | 1           | 22                      | 8                            | 8                            | ..           | ..                                  | ..              | ..                                  | ..                         | 148    |
| (b)                      |                                                                 |                                  | ..                                                                                            | ..             | 2 <sup>a</sup>                           | 5                                      | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | 9                       | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | 1                          | 17     |
| (c)                      |                                                                 |                                  | 26                                                                                            | 16             | ..                                       | ..                                     | 1                           | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | 43     |
| (d)                      |                                                                 |                                  | ..                                                                                            | ..             | ..                                       | ..                                     | ..                          | ..                           | ..                    | ..                   | ..                        | ..                       | ..         | ..                     | ..          | ..                      | ..                           | ..                           | ..           | ..                                  | ..              | ..                                  | ..                         | ..     |

<sup>a</sup> 1 death of case not notified.

TABLE 6—continued.

| DISTRICT.        | Nature of Hospital Accommodation. |                                                                    | Infectious Diseases.                                                                          |                |                                          |                                        |                          |                  |                              |                       |                      |                           |               |            |                        |             |                         |                              |                              |              |                                     | Disinfection. | No. of houses or rooms disinfected. |                 |                            |        |
|------------------|-----------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------------|-----------------------|----------------------|---------------------------|---------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|--------------|-------------------------------------|---------------|-------------------------------------|-----------------|----------------------------|--------|
|                  |                                   |                                                                    | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                          |                  |                              |                       |                      |                           |               |            |                        |             |                         |                              |                              |              |                                     |               |                                     |                 |                            |        |
|                  | For ordinary infectious diseases. | For Smallpox.                                                      | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia. | Acute Influenza. | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). |               |                                     | Whooping Cough. | Diarrhoea (under 2 years). | Total. |
| Carnforth        | ...                               | By arrangement cases sent to Kendal                                | (a)                                                                                           | 1              | 4                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | 2                            | 3                            | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | 10     |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | 1                                   | ...           | ...                                 | ...             | ...                        | 1      |
|                  |                                   |                                                                    | (c)                                                                                           | 1              | 3                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 2                            | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | 6      |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | ...    |
| Chadderton       | ...                               | At Oldham C.B. Hospital                                            | (a)                                                                                           | 54             | 6                                        | ...                                    | ...                      | 50               | 3                            | ...                   | ...                  | ...                       | ...           | ...        | ...                    | 4           | 10                      | 22                           | 13                           | ...          | ...                                 | ...           | 3                                   | 1               | 162                        |        |
|                  |                                   |                                                                    | (b)                                                                                           | 2              | 1                                        | ...                                    | 13                       | 1                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 16                           | 5            | ...                                 | ...           | ...                                 | ...             | 42                         |        |
|                  |                                   |                                                                    | (c)                                                                                           | 24             | 5                                        | ...                                    | ...                      | 1                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 30                         |        |
|                  |                                   |                                                                    | (d)                                                                                           | 2              | 1                                        | ...                                    | ...                      | 1                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 4                          |        |
| Crompton         | ...                               | Do.                                                                | (a)                                                                                           | 48             | 5                                        | ...                                    | ...                      | 21               | 1                            | ...                   | ...                  | ...                       | 1             | ...        | ...                    | ...         | 7                       | 13                           | 11                           | ...          | 176                                 | 5             | ...                                 | ...             | 289                        |        |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | 2                                        | ...                                    | 12                       | 1                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 7                            | 2            | ...                                 | ...           | ...                                 | ...             | 25                         |        |
|                  |                                   |                                                                    | (c)                                                                                           | 41             | 5                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 47                         |        |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | 2                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 3                          |        |
| Royton           | ...                               | Do.                                                                | (a)                                                                                           | 39             | 9                                        | ...                                    | ...                      | 31               | 1                            | ...                   | ...                  | ...                       | ...           | ...        | 2                      | 15          | 18                      | 7                            | ...                          | 39           | ...                                 | ...           | ...                                 | ...             | 161                        |        |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | 1                                        | ...                                    | 16                       | 1                | ...                          | ...                   | ...                  | ...                       | ...           | 1†         | ...                    | ...         | ...                     | ...                          | 9                            | 1            | ...                                 | ...           | ...                                 | ...             | 29                         |        |
|                  |                                   |                                                                    | (c)                                                                                           | 12             | 6                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | 19     |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | ...    |
| Church           | ...                               | Arranged with Blackburn C.B. as required                           | (a)                                                                                           | 28             | 2                                        | ...                                    | ...                      | 7                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | 2                            | 5                            | ...          | ...                                 | ...           | ...                                 | ...             | 44                         |        |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | 1                                        | ...                                    | 4                        | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 3                            | 1            | ...                                 | ...           | ...                                 | 1               | 10                         |        |
|                  |                                   |                                                                    | (c)                                                                                           | ...            | 1                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 1                          |        |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | ...    |
| Clayton-le-Moors | ...                               | At Burnley, &c., Joint Hospital                                    | (a)                                                                                           | 16             | 3                                        | ...                                    | ...                      | 4                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | 4                            | 3                            | ...          | ...                                 | ...           | ...                                 | ...             | 31                         |        |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | ...                      | 5                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...          | ...                                 | ...           | ...                                 | ...             | 9                          |        |
|                  |                                   |                                                                    | (c)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | ...    |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | ...    |
| Clitheroe (B)    | ...                               | Arranged with Blackburn C.B. "in cases of emergency."              | (a)                                                                                           | 29             | 8                                        | ...                                    | ...                      | 25               | 7                            | ...                   | ...                  | 1                         | ...           | ...        | 1                      | 2           | 7                       | 6                            | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 86                         |        |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | 1                                        | ...                                    | 7                        | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 1                            | 1            | ...                                 | ...           | ...                                 | ...             | 11                         |        |
|                  |                                   |                                                                    | (c)                                                                                           | 1              | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 5                          |        |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 1                          |        |
| Colne (B)        | ...                               | 12 beds, Jerusalem Farm. Also arrangement with Burnley C.B.—3 beds | (a)                                                                                           | 220            | 19                                       | ...                                    | ...                      | 47               | 3                            | ...                   | ...                  | ...                       | ...           | ...        | 1                      | 23          | 24                      | 16                           | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 353                        |        |
|                  |                                   |                                                                    | (b)                                                                                           | 7              | 3                                        | ...                                    | 15                       | 1                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | 18                           | 7                            | ...          | ...                                 | 1             | ...                                 | 4               | 56                         |        |
|                  |                                   |                                                                    | (c)                                                                                           | 60             | 8                                        | ...                                    | ...                      | 1                | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | 1                            | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 70                         |        |
|                  |                                   |                                                                    | (d)                                                                                           | ...            | 2                                        | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 2                          |        |
| Croston          | ...                               | At West Lancashire Rural Hospital                                  | (a)                                                                                           | 15             | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | 1                       | 2                            | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 18                         |        |
|                  |                                   |                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...          | ...                                 | ...           | ...                                 | ...             | 1                          |        |
|                  |                                   |                                                                    | (c)                                                                                           | 12             | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 12                         |        |
|                  |                                   |                                                                    | ...                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...              | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                        | ...    |



TABLE 6—continued

| Nature of Hospital Accommodation. |                                                         |                                      | INFECTIOUS DISEASES. |     |                                                                                               |                |                                          |                                        |                            |                               |                       |                      |                           |                          |            |                        |             |                         | Disinfection.                |                              |                               |                                     |              |                                     |                 |                            |                                                |     |     |
|-----------------------------------|---------------------------------------------------------|--------------------------------------|----------------------|-----|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|----------------------------|-------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------------|--------------|-------------------------------------|-----------------|----------------------------|------------------------------------------------|-----|-----|
| DISTRICT.                         | For ordinary infectious diseases.                       |                                      | For Smallpox.        |     | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                            |                               |                       |                      |                           |                          |            |                        |             |                         |                              |                              | Apparatus and where situated. | No. of houses or rooms disinfectcd. |              |                                     |                 |                            |                                                |     |     |
|                                   |                                                         |                                      |                      |     | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Influenzal Pneumonia | Puerperal Fever, and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). |                               |                                     | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diarrhoea (under 2 years). | Total.                                         |     |     |
| Dalton-in-Furness                 | Joint at High Carley—40 beds                            | Arrangement with Kendal (Woodside)   | (a)                  | 16  | 9                                                                                             | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 1           | 1                       | 12                           | 8                            | ...                           | ...                                 | ...          | ...                                 | 1               | 47                         | Steam—Public Assistance Institution, Ulverston | 32  |     |
|                                   |                                                         |                                      | (b)                  | ... | ...                                                                                           | ...            | 5                                        | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 13                           | ...                           | ...                                 | ...          | ...                                 | ...             | 21                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 16  | 9                                                                                             | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 25  |
|                                   |                                                         |                                      | (d)                  | ... | ...                                                                                           | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | ... |
| Ulverston...                      | Joint at High Carley—40 beds                            | Arrangement with Kendal (Woodside)   | (a)                  | 11  | 10                                                                                            | ...            | 3                                        | 1                                      | 1                          | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 1                       | 13                           | 6                            | ...                           | ...                                 | ...          | ...                                 | ...             | 46                         | Steam—Poor Law Institution                     | 37  |     |
|                                   |                                                         |                                      | (b)                  | ... | ...                                                                                           | ...            | 9                                        | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 7                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | 19                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 11  | 10                                                                                            | ...            | ...                                      | ...                                    | 3                          | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 1                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | 25                         |                                                |     |     |
|                                   |                                                         |                                      | (d)                  | ... | ...                                                                                           | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | ... |
| Ulverston (R)                     | ...                                                     | ...                                  | (a)                  | 47  | 17                                                                                            | 4              | 6                                        | 1                                      | 1                          | ...                           | ...                   | ...                  | ...                       | ...                      | 2          | ...                    | ...         | 6                       | 26                           | 3                            | ...                           | ...                                 | ...          | ...                                 | ...             | 112                        | No proper apparatus                            | 89  |     |
|                                   |                                                         |                                      | (b)                  | ... | 7                                                                                             | 1              | 6                                        | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | 1                      | ...         | ...                     | ...                          | 6                            | ...                           | ...                                 | ...          | ...                                 | ...             | 22                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 45  | 16                                                                                            | ...            | ...                                      | 1                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 1                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | 66                         |                                                |     |     |
|                                   |                                                         |                                      | (d)                  | ... | ...                                                                                           | 2              | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 1                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | 3                          |                                                |     |     |
| Darwen (B)                        | 36 beds                                                 | Agreement with Blackburn C.B.        | (a)                  | 230 | 29                                                                                            | ...            | 33                                       | 7                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | 1          | ...                    | 3           | 8                       | 14                           | 11                           | ...                           | ...                                 | ...          | ...                                 | ...             | 336                        | Steam—Electricity Works                        | 348 |     |
|                                   |                                                         |                                      | (b)                  | ... | 1                                                                                             | ...            | 18                                       | 3                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | 2c         | ...                    | ...         | ...                     | ...                          | 14                           | 1                             | ...                                 | ...          | ...                                 | ...             | 44                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 175 | 29                                                                                            | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | 1                      | ...         | 2                       | 1                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 213 |
|                                   |                                                         |                                      | (d)                  | ... | ...                                                                                           | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | ... |
| Denton                            | Hyde Borough Hospital                                   | 2 beds, Hyde                         | (a)                  | 35  | 15                                                                                            | ...            | 30                                       | 3                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 1           | 13                      | 22                           | 6                            | ...                           | ...                                 | ...          | ...                                 | ...             | 125                        | No proper apparatus                            | 58  |     |
|                                   |                                                         |                                      | (b)                  | ... | 1                                                                                             | ...            | 14                                       | 1                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 10                           | 2                            | ...                           | ...                                 | ...          | ...                                 | ...             | 30                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 7   | 7                                                                                             | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 15  |
|                                   |                                                         |                                      | (d)                  | ... | 1                                                                                             | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 1   |
| Droylsden                         | Agreement with Manchester C.B.                          | 1 bed, Hyde                          | (a)                  | 53  | 4                                                                                             | ...            | 32                                       | 1                                      | 1                          | ...                           | 1                     | ...                  | ...                       | ...                      | 1          | ...                    | 1           | 5                       | 16                           | 6                            | ...                           | ...                                 | ...          | ...                                 | ...             | 120                        | Steam — At Refuse Destructor                   | 145 |     |
|                                   |                                                         |                                      | (b)                  | ... | ...                                                                                           | ...            | 11                                       | 1                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 11                           | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | 27                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 25  | 3                                                                                             | ...            | ...                                      | 1                                      | 1                          | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 30  |
|                                   |                                                         |                                      | (d)                  | ... | ...                                                                                           | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | ... |
| Eccles (B)                        | At Salford C.B. Hospital                                | At Clayton Vale Hospital, Manchester | (a)                  | 163 | 24                                                                                            | 1              | 61                                       | 3                                      | ...                        | 4                             | ...                   | ...                  | ...                       | ...                      | 1          | ...                    | 1           | 23                      | 38                           | 16                           | ...                           | ...                                 | 234          | ...                                 | ...             | 601                        | Steam — Sewage Disposal Works                  | 384 |     |
|                                   |                                                         |                                      | (b)                  | 1   | 2                                                                                             | ...            | 38                                       | 1                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | 1                      | ...         | ...                     | ...                          | 27                           | 6                             | ...                                 | ...          | ...                                 | ...             | 80                         |                                                |     |     |
|                                   |                                                         |                                      | (c)                  | 36  | 23                                                                                            | 1              | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 2                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 65  |
|                                   |                                                         |                                      | (d)                  | 1   | 1                                                                                             | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 3   |
| Failsworth...                     | At Oldham C.B. Hospital                                 | Chadderton, &c., Joint Board—2 beds  | (a)                  | 44  | 3                                                                                             | ...            | 52                                       | 3                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 8                       | 26                           | 4                            | ...                           | ...                                 | ...          | ...                                 | ...             | 140                        | Steam—Oldham C.B.                              | 61  |     |
|                                   |                                                         |                                      | (b)                  | ... | ...                                                                                           | ...            | 21                                       | ...                                    | 1†                         | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 12                           | 2                            | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 38  |
|                                   |                                                         |                                      | (c)                  | 29  | 3                                                                                             | ...            | ...                                      | 3                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 4                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 39  |
|                                   |                                                         |                                      | (d)                  | ... | ...                                                                                           | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 2                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 2   |
| Farnworth                         | Arrangement with Salford C.B. and Leigh Joint Hospitals | At Bury, &c., Joint Hospital         | (a)                  | 148 | 19                                                                                            | ...            | 189                                      | 48a                                    | 2                          | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 13b         | 29                      | 22                           | 11                           | ...                           | ...                                 | ...          | ...                                 | ...             | 481                        | Steam—At Old Hospital                          | 34  |     |
|                                   |                                                         |                                      | (b)                  | 1   | ...                                                                                           | ...            | 29                                       | 1                                      | 1                          | ...                           | ...                   | 1†                   | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 12                           | 4                            | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 50  |
|                                   |                                                         |                                      | (c)                  | 68  | 11                                                                                            | ...            | ...                                      | 5                                      | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 4                            | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 88  |
|                                   |                                                         |                                      | (d)                  | 1   | ...                                                                                           | ...            | ...                                      | ...                                    | ...                        | ...                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...                           | ...                                 | ...          | ...                                 | ...             | ...                        |                                                |     | 1   |

(a) Includes 42 cases and (b) 11 cases in Townleys Hospital. (c) 1 Inward transfer.

TABLE 6—continued.

| DISTRICT.               | Nature of Hospital Accommodation. |                                                                                                    | Infectious Diseases.                                                                          |                |                                          |                                        |                           |                              |                       |                      |                           |                          |            |                        |             |                         |                             |                              |              |                                     |                 | Disinfection. | No. of houses or rooms disinfected. |
|-------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|---------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|-----------------------------|------------------------------|--------------|-------------------------------------|-----------------|---------------|-------------------------------------|
|                         |                                   |                                                                                                    | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                           |                              |                       |                      |                           |                          |            |                        |             |                         |                             |                              |              |                                     |                 |               |                                     |
|                         |                                   |                                                                                                    | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Influenza Pneumonia | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. |               |                                     |
| Fleetwood (B) ...       | For ordinary infectious diseases. | For Smallpox.                                                                                      | (a)                                                                                           | 15             | 12                                       | ...                                    | 24                        | 7                            | ...                   | ...                  | ...                       | ...                      | ...        | 4                      | 4           | 22                      | 11                          | ...                          | ...          | ...                                 | ...             | ...           | 99                                  |
| Kirkham ...             |                                   |                                                                                                    | (b)                                                                                           | ...            | ...                                      | 14                                     | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 18                          | 4                            | ...          | ...                                 | 6               | ...           | 47                                  |
| Lytham Saint Anne's (B) |                                   |                                                                                                    | (c)                                                                                           | 9              | 10                                       | ...                                    | ...                       | 4                            | ...                   | ...                  | ...                       | 2a                       | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 23                                  |
| Poulton-le-Fylde        |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | 2            | ...                                 | ...             | ...           | ...                                 |
| Thornton Cleveleys      | Joint at Moss Side, 44 beds       | Joint at Elswick 29 beds (including 14 beds provided by Preston Corporation) (continued next page) | (a)                                                                                           | 52             | 25                                       | 2                                      | 12                        | 3                            | ...                   | ...                  | ...                       | ...                      | 2          | 3                      | 28          | 14                      | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 141                                 |
| Fylde (R)...            |                                   |                                                                                                    | (b)                                                                                           | ...            | 2                                        | 1                                      | 17                        | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 12                          | 2                            | ...          | ...                                 | ...             | ...           | 37                                  |
| Fulwood ...             |                                   |                                                                                                    | (c)                                                                                           | 47             | 24                                       | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 72                                  |
| Longridge               |                                   |                                                                                                    | (d)                                                                                           | ...            | 1                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |
| Preston (R)             | Joint at Fulwood 45 beds          |                                                                                                    | (a)                                                                                           | 5              | 1                                        | ...                                    | 1                         | ...                          | ...                   | ...                  | 1                         | ...                      | ...        | ...                    | ...         | 3                       | 3                           | ...                          | ...          | ...                                 | ...             | ...           | 14                                  |
|                         |                                   |                                                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 1                           | ...                          | ...          | ...                                 | ...             | ...           | 2                                   |
|                         |                                   |                                                                                                    | (c)                                                                                           | 3              | 1                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 4                                   |
|                         |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |
|                         |                                   |                                                                                                    | (a)                                                                                           | 10             | 1                                        | 2                                      | 3                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 8                       | 8                           | ...                          | ...          | 9                                   | ...             | ...           | 41                                  |
|                         |                                   |                                                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | 4                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 7                           | ...                          | ...          | ...                                 | ...             | 1             | 12                                  |
|                         |                                   |                                                                                                    | (c)                                                                                           | 6              | 1                                        | 1                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 8                                   |
|                         |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |
|                         |                                   |                                                                                                    | (a)                                                                                           | 53             | 9                                        | 2                                      | 6                         | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 19                      | 7                           | ...                          | ...          | ...                                 | ...             | ...           | 98                                  |
|                         |                                   |                                                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | 10                        | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 8                           | 4                            | ...          | ...                                 | ...             | 1             | 24                                  |
|                         |                                   |                                                                                                    | (c)                                                                                           | 50             | 9                                        | 2                                      | ...                       | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 62                                  |
|                         |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |
|                         |                                   |                                                                                                    | (a)                                                                                           | 15             | 2                                        | ...                                    | 7                         | 7b                           | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 3                       | 5                           | 2                            | ...          | 2                                   | ...             | ...           | 43                                  |
|                         |                                   |                                                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | 2                            | ...          | ...                                 | ...             | 1             | 4                                   |
|                         |                                   |                                                                                                    | (c)                                                                                           | 11             | 2                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 13                                  |
|                         |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |
|                         |                                   |                                                                                                    | (a)                                                                                           | 27             | 9                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | 1                      | ...         | 7                       | 3                           | ...                          | ...          | ...                                 | ...             | ...           | 47                                  |
|                         |                                   |                                                                                                    | (b)                                                                                           | ...            | 2                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 5                           | ...                          | ...          | ...                                 | ...             | 1             | 11                                  |
|                         |                                   |                                                                                                    | (c)                                                                                           | 26             | 9                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 35                                  |
|                         |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |
|                         |                                   |                                                                                                    | (a)                                                                                           | 108            | 10                                       | 1                                      | 44                        | 2                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 36                      | 10                          | ...                          | ...          | ...                                 | ...             | ...           | 242                                 |
|                         |                                   |                                                                                                    | (b)                                                                                           | ...            | ...                                      | ...                                    | 20                        | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 17                          | 5                            | ...          | ...                                 | ...             | ...           | 49                                  |
|                         |                                   |                                                                                                    | (c)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | 103                                 |
|                         |                                   |                                                                                                    | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |

| DISTRICT.          |     | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                                       |           |                |                                          |                                        |                         |                           |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              | Disinfection. |                                     |                 |                            |        |                               |                                     |     |     |
|--------------------|-----|-----------------------------------------------------------------------------------------------|---------------------------------------|-----------|----------------|------------------------------------------|----------------------------------------|-------------------------|---------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|---------------|-------------------------------------|-----------------|----------------------------|--------|-------------------------------|-------------------------------------|-----|-----|
|                    |     | For ordinary infectious diseases.                                                             | For Smallpox.                         | Smallpox. | Scarlet Fever. | Diphtheria (including Membranous Group). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia | Acute Influenza Pneumonia | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox.  | Measles (excluding German Measles). | Whooping Cough. | Diarrhoea (under 2 years). | Total. | Apparatus and where situated. | No. of houses or rooms disinfected. |     |     |
| Preesall ...       | ... | At Blackpool C.B. Hospital                                                                    | Joint at Elswick (see previous page)  | (a)       | 2              | 9                                        | ...                                    | 4                       | 2                         | 2                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...           | ...                                 | ...             | ...                        | ...    | 18                            | Steam—Blackpool C.B.                | 13  |     |
|                    |     |                                                                                               |                                       | (b)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    | 2                             |                                     |     |     |
|                    |     |                                                                                               |                                       | (c)       | 2              | 5                                        | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    | 7                             |                                     |     |     |
|                    |     |                                                                                               |                                       | (d)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    | ...                           |                                     |     |     |
| Garstang (R) ...   | ... | Moss Side. Arrangement with Fylde Joint Hospital                                              | Joint at Elswick (see previous page)  | (a)       | 13             | 2                                        | ...                                    | 2                       | 1                         | ...                          | ...                   | 3                    | ...                       | ...                      | ...        | ...                    | 1           | 3                       | 7                            | 6                            | ...           | ...                                 | ...             | ...                        | ...    | 38                            | No proper apparatus                 | 27  |     |
|                    |     |                                                                                               |                                       | (b)       | ...            | ...                                      | ...                                    | 4                       | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | 2             | 3                                   | ...             | ...                        | ...    | ...                           |                                     |     | 10  |
|                    |     |                                                                                               |                                       | (c)       | 10             | 2                                        | ...                                    | ...                     | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    | 13                            |                                     |     |     |
|                    |     |                                                                                               |                                       | (d)       | ...            | ...                                      | ...                                    | ...                     | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    | 1                             |                                     |     |     |
| Formby ...         | ... | At Bootle C.B. Hospitals ...                                                                  | ...                                   | (a)       | 17             | 3                                        | ...                                    | 4                       | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 3           | 12                      | 5                            | ...                          | ...           | ...                                 | ...             | ...                        | 45     | Steam — Bootle C.B.           | 34                                  |     |     |
|                    |     |                                                                                               |                                       | (b)       | 1              | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | 6   |     |
|                    |     |                                                                                               |                                       | (c)       | 3              | 3                                        | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | 6   |     |
|                    |     |                                                                                               |                                       | (d)       | 1              | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | 1   |     |
| Grange-over-Sands  | ... | At Kendal Borough Joint Hospital Board                                                        | Kendal Smallpox Joint Hospital Board  | (a)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 5                       | 1                            | ...                          | ...           | ...                                 | ...             | ...                        | 6      | No proper apparatus           | 16 rooms                            |     |     |
|                    |     |                                                                                               |                                       | (b)       | ...            | ...                                      | ...                                    | 2                       | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | 1             | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 3   |
|                    |     |                                                                                               |                                       | (c)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | ... |
|                    |     |                                                                                               |                                       | (d)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | ... |
| Great Crosby       | ... | At Liverpool C.B. Hospitals                                                                   | ...                                   | (a)       | 140            | 22                                       | 4                                      | 26                      | 3                         | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 7           | 17                      | 4                            | ...                          | ...           | ...                                 | 63              | 57                         | 344    | Dry Heat—Council's Yard       | 187                                 |     |     |
|                    |     |                                                                                               |                                       | (b)       | 2              | 2                                        | ...                                    | 7                       | ...                       | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | 1             | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 21  |
|                    |     |                                                                                               |                                       | (c)       | 63             | 17                                       | ...                                    | ...                     | 2                         | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 87  |
|                    |     |                                                                                               |                                       | (d)       | 1              | ...                                      | ...                                    | ...                     | ...                       | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 3   |
| Great Harwood      | ... | At Blackburn C.B. Hospitals                                                                   | Agreement with Blackburn C.B. —2 beds | (a)       | 54             | 5                                        | ...                                    | 5                       | 1                         | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 2           | 6                       | 2                            | ...                          | ...           | ...                                 | ...             | ...                        | 75     | Steam—Accrington (B)          | 62                                  |     |     |
|                    |     |                                                                                               |                                       | (b)       | ...            | ...                                      | ...                                    | 9                       | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 3                            | 5             | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 20  |
|                    |     |                                                                                               |                                       | (c)       | ...            | 1                                        | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 1   |
|                    |     |                                                                                               |                                       | (d)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | ... |
| Haslingden (B) ... | ... | Agreement with Bury and District Joint Hospital Board                                         | ...                                   | (a)       | 27             | 13                                       | 1                                      | 45                      | 1                         | 1                            | ...                   | ...                  | 1                         | ...                      | ...        | 1                      | 16          | 13                      | 10                           | ...                          | ...           | ...                                 | ...             | ...                        | 129    | Steam — At Refuse Destructor  | 48                                  |     |     |
|                    |     |                                                                                               |                                       | (b)       | ...            | ...                                      | ...                                    | 11                      | 1                         | ...                          | ...                   | ...                  | 2a                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 5                            | 3             | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 26  |
|                    |     |                                                                                               |                                       | (c)       | ...            | 4                                        | 1                                      | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 12  |
|                    |     |                                                                                               |                                       | (d)       | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | ... |
| Haydock ...        | ... | 10 beds at St. Helens C.B. Hospital                                                           | Warrington Small-pox Hospital—3 beds  | (a)       | 26             | 8                                        | ...                                    | 44                      | 4                         | 1                            | ...                   | ...                  | ...                       | ...                      | ...        | 2                      | 13          | 4                       | 5                            | ...                          | ...           | ...                                 | ...             | ...                        | 110    | Steam—Hospital ...            | 64                                  |     |     |
|                    |     |                                                                                               |                                       | (b)       | ...            | 1                                        | ...                                    | 5                       | 1                         | 1                            | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 3                            | 3             | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 20  |
|                    |     |                                                                                               |                                       | (c)       | 21             | 8                                        | ...                                    | ...                     | 2                         | 1                            | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 32  |
|                    |     |                                                                                               |                                       | (d)       | ...            | 1                                        | ...                                    | ...                     | ...                       | 1                            | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...             | ...                        | ...    |                               |                                     | ... | 3   |

a—1 inward transfer.

a—1 inward transfer.



TABLE 6—continued.

| DISTRICT.           | Nature of Hospital Accommodation. |                                                                         | Infectious Diseases.                                                                          |                |                                          |                                        |                         |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              | Disinfection. | No. of houses or rooms disinfected. |              |                                     |                 |                             |        |
|---------------------|-----------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|-------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|---------------|-------------------------------------|--------------|-------------------------------------|-----------------|-----------------------------|--------|
|                     |                                   |                                                                         | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                         |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              |               |                                     |              |                                     |                 |                             |        |
|                     |                                   |                                                                         | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). |               |                                     | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diphtheria (under 2 years). | Total. |
| Heywood (B)         | ...                               | At Rochdale C.B. Hospital (Marland)                                     | At Bury, etc., Joint Hospital                                                                 | (a)            | 40                                       | 12                                     | 1                       | 54                           | 1                     | 1                    | 1                         | ...                      | ...        | 3                      | 10          | 30                      | 12                           | ...                          | ...           | ...                                 | 6            | ...                                 | 164             |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | ...                                      | 1                                      | 7                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 34                          |        |
|                     |                                   |                                                                         |                                                                                               | (c)            | 28                                       | 11                                     | ...                     | ...                          | 1                     | 1                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 1                            | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 42                          |        |
|                     |                                   |                                                                         |                                                                                               | (d)            | ...                                      | 1                                      | ...                     | ...                          | ...                   | 1                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 2                           |        |
| *Hindley ...        | ...                               | Sandy Lane, Hindley, 16 beds                                            | Use ordinary infectious diseases hospital                                                     | (a)            | 25                                       | 5                                      | 1                       | 80                           | ...                   | ...                  | ...                       | ...                      | 1          | 11                     | 23          | 15                      | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | 161             |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | ...                                      | 1                                      | 37                      | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 63                          |        |
|                     |                                   |                                                                         |                                                                                               | (c)            | 10                                       | 2                                      | 1                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 13                          |        |
|                     |                                   |                                                                         |                                                                                               | (d)            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | ...    |
| Huyton-with-Roby    | ...                               | Whiston                                                                 | Liverpool C.B.                                                                                | (a)            | 5                                        | 24                                     | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 3           | 2                       | ...                          | ...                          | ...           | 1                                   | ...          | 34                                  |                 |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | ...                                      | 1                                      | ...                     | 5                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 9                           |        |
|                     |                                   |                                                                         |                                                                                               | (c)            | 5                                        | 23                                     | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 28                          |        |
|                     |                                   |                                                                         |                                                                                               | (d)            | ...                                      | 1                                      | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 1                           |        |
| *Ince-in-Makerfield | ...                               | Own hospital 13 beds. Also send to Abram and Wigan C.B. by arrangement. | 10 beds ...                                                                                   | (a)            | 129                                      | 4                                      | 1                       | 100                          | 4                     | 2                    | 6                         | ...                      | ...        | 4                      | 12          | 24                      | 23                           | ...                          | ...           | ...                                 | 5            | ...                                 | 309             |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | 1                                        | ...                                    | 49                      | 1                            | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 92                          |        |
|                     |                                   |                                                                         |                                                                                               | (c)            | 82                                       | 3                                      | 1                       | ...                          | 3                     | 2                    | 3                         | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 94     |
|                     |                                   |                                                                         |                                                                                               | (d)            | 1                                        | ...                                    | ...                     | ...                          | ...                   | 1                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 2      |
| Irlam ...           | ...                               | At Salford C.B. Hospital (no contract)                                  | Arrangement with Manchester C.B.                                                              | (a)            | 39                                       | 1                                      | 2                       | 37                           | 3                     | 1                    | 9                         | ...                      | ...        | ...                    | 7           | 11                      | 7                            | ...                          | ...           | ...                                 | 1            | ...                                 | 118             |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | ...                                      | ...                                    | 13                      | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 29     |
|                     |                                   |                                                                         |                                                                                               | (c)            | ...                                      | ...                                    | 2                       | ...                          | 1                     | 2                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 7      |
|                     |                                   |                                                                         |                                                                                               | (d)            | ...                                      | ...                                    | ...                     | ...                          | ...                   | 1                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 2      |
| Kearsley ...        | ...                               | Arrangement with Salford C.B. and Leigh Joint Hospitals                 | At Bury, etc., Joint Hospital                                                                 | (a)            | 69                                       | 12                                     | ...                     | 24                           | 1                     | 2                    | ...                       | ...                      | ...        | 1                      | 11          | 4                       | ...                          | ...                          | ...           | ...                                 | ...          | 125                                 |                 |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | ...                                      | 1                                      | ...                     | 9                            | ...                   | 2                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 21                          |        |
|                     |                                   |                                                                         |                                                                                               | (c)            | 34                                       | 9                                      | ...                     | ...                          | 1                     | 1                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | 46                          |        |
|                     |                                   |                                                                         |                                                                                               | (d)            | ...                                      | 1                                      | ...                     | ...                          | ...                   | 1                    | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 3      |
| Lancaster (B)       | ...                               | 32 beds, Luneside                                                       | 11 beds, Littlefell                                                                           | (a)            | 64                                       | 168                                    | 3                       | 66                           | 10                    | 1                    | 1                         | ...                      | ...        | 5                      | 18          | 54                      | 17                           | ...                          | ...           | ...                                 | ...          | ...                                 | 407             |                             |        |
|                     |                                   |                                                                         |                                                                                               | (b)            | ...                                      | 5                                      | 2                       | 36                           | ...                   | 1                    | 1                         | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 86     |
|                     |                                   |                                                                         |                                                                                               | (c)            | 57                                       | 161                                    | 3                       | ...                          | 5                     | 1                    | 1                         | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 236    |
|                     |                                   |                                                                         |                                                                                               | (d)            | ...                                      | 6                                      | 2                       | ...                          | ...                   | 1                    | 1                         | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                         | 10     |

TABLE 6—continued.

| Nature of Hospital Accommodation. |                                   |               | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |           |                |                                          |                                        |                                      |                       |                      |                           |                          |            |                        |             |                         |                              |                              |              | Disinfection.                       |                 |                           |        |                               |                                     |     |
|-----------------------------------|-----------------------------------|---------------|-----------------------------------------------------------------------------------------------|-----------|----------------|------------------------------------------|----------------------------------------|--------------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|--------------|-------------------------------------|-----------------|---------------------------|--------|-------------------------------|-------------------------------------|-----|
| DISTRICT.                         | For ordinary infectious diseases. |               | For Smallpox.                                                                                 | Smallpox. | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diarthra (under 2 years). | Total. | Apparatus and where situated. | No. of houses or rooms disinfected. |     |
|                                   | For ordinary infectious diseases. | For Smallpox. |                                                                                               | (a)       | (b)            | (c)                                      | (d)                                    | (a)                                  | (b)                   | (c)                  | (d)                       | (a)                      | (b)        | (c)                    | (d)         | (a)                     | (b)                          | (c)                          | (d)          | (a)                                 | (b)             | (c)                       | (d)    |                               |                                     | (a) |
| Lees                              | ...                               | ...           | ...                                                                                           | ...       | 17             | 8                                        | ...                                    | 7                                    | ...                   | ...                  | ...                       | 1†                       | ...        | ...                    | ...         | 1                       | 2                            | 6                            | ...          | ...                                 | ...             | ...                       | ...    | 41                            | No proper apparatus                 | 30  |
| Litherland                        | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| Littleborough                     | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| Milnrow                           | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| Wardle                            | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| cLittle Hulton                    | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| Little Lever                      | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| Middleton (B)                     | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |
| Morecambe and Heysham (B)         | ...                               | ...           | ...                                                                                           | ...       | ...            | ...                                      | ...                                    | ...                                  | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                       | ...    | ...                           | ...                                 | ... |

a—1 death of case not notified; b—Cases occurring in Birch Hill Hospital; c—District incorporated with Worsley, 1st April, 1933.

TABLE 6—continued.

| DISTRICT.   | Nature of Hospital Accommodation. |     | Infectious Diseases.                                                                          |                |                                          |                                          |                          |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              | Disinfection. | No. of houses or rooms disinfected. |              |                                     |                 |                            |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
|-------------|-----------------------------------|-----|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|------------------------------------------|--------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|---------------|-------------------------------------|--------------|-------------------------------------|-----------------|----------------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|             |                                   |     | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                          |                          |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              |               |                                     |              |                                     |                 |                            |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
|             |                                   |     | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Bacterial Fever (including Paratyphoid). | Acute Primary Pneumonia. | Purpural Fever, and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). |               |                                     | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diarrhoea (under 2 years). | Total. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |       |
| Mossley (B) | ...                               | Nil | ...                                                                                           | ...            | ...                                      | ...                                      | ...                      | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...           | ...                                 | ...          | ...                                 | ...             | ...                        | ...    | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...</ |



| Nature of Hospital Accommodation. |               |                                                                                    | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                                          |                                        |                           |                              |                       |                      |                           |                          |            |                        |             |                         |                              |                              |              |                                     |                 |                            |        | Apparatus and where situated. | No. of houses or rooms disinfected. |
|-----------------------------------|---------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------|---------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|--------------|-------------------------------------|-----------------|----------------------------|--------|-------------------------------|-------------------------------------|
| For ordinary infectious diseases. | For Smallpox. | Smallpox.                                                                          | Scarlet Fever.                                                                                | Diphtheria (including Membranous Group). | Enteric Fever (including Paratyphoid). | Acute Influenza Pneumonia | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diarrhoea (under 2 years). | Total. |                               |                                     |
| Radeliffe ...                     | }             | Joint Hospitals of the Bury and District Hospital Board :—<br>90 beds   40–45 beds | (a)                                                                                           | 59                                       | 61                                     | ...                       | 71                           | 1                     | ...                  | 1                         | ...                      | 1          | ...                    | 1           | 9                       | 18                           | 10                           | ...          | ...                                 | ...             | ...                        | ...    | 232                           |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | 1                                      | ...                       | 20                           | ...                   | ...                  | ...                       | ...                      | ...        | 2a                     | ...         | ...                     | ...                          | ...                          | 17           | 3                                   | ...             | ...                        | ...    | 43                            |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | 43                                       | 51                                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 6                            | ...          | ...                                 | ...             | ...                        | ...    | 102                           |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | 1                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...          | ...                                 | ...             | ...                        | ...    | 2                             |                                     |
| Ramsbottom ...                    | }             |                                                                                    | (a)                                                                                           | 39                                       | 13                                     | ...                       | 7                            | 3                     | ...                  | 4                         | ...                      | ...        | ...                    | 3           | 6                       | 16                           | 10                           | ...          | ...                                 | ...             | ...                        | ...    | 101                           |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | 1                                        | ...                                    | ...                       | 3                            | ...                   | 1                    | ...                       | ...                      | ...        | 2+                     | ...         | ...                     | ...                          | ...                          | 10           | 2                                   | ...             | ...                        | ...    | 20                            |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | 32                                       | 7                                      | ...                       | ...                          | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...          | ...                                 | ...             | ...                        | ...    | 44                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | 1                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 1                             |                                     |
| Tottington ...                    | }             |                                                                                    | (a)                                                                                           | 13                                       | 11                                     | ...                       | 22                           | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 3                       | 6                            | 7                            | ...          | ...                                 | ...             | ...                        | ...    | 63                            |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | 1                                        | ...                                    | ...                       | 1                            | 1                     | ...                  | 1+                        | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 2                            | 1            | ...                                 | ...             | ...                        | ...    | 7                             |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | 13                                       | 11                                     | ...                       | ...                          | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 27                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | 1                                        | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 1                             |                                     |
| Whitefield ...                    | }             |                                                                                    | (a)                                                                                           | 34                                       | 17                                     | 1                         | 22                           | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | 1           | 1                       | 6                            | 7                            | ...          | ...                                 | ...             | ...                        | ...    | 90                            |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | 1                                      | ...                       | 5                            | ...                   | 1+                   | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 1                            | 1            | ...                                 | ...             | ...                        | ...    | 9                             |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | 26                                       | 17                                     | 1                         | ...                          | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...          | ...                                 | ...             | ...                        | ...    | 46                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | 1                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 1                             |                                     |
| bBury (R) ...                     | }             |                                                                                    | (a)                                                                                           | 20                                       | 1                                      | ...                       | 15                           | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 4                       | 1                            | 2                            | ...          | ...                                 | ...             | ...                        | ...    | 44                            |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | ...                                    | ...                       | 3                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | 1            | ...                                 | ...             | ...                        | ...    | 4                             |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | 19                                       | 1                                      | ...                       | ...                          | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 21                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | ...                           |                                     |
| Rainford ...                      | }             | Agreement with Ormskirk                                                            | (a)                                                                                           | 1                                        | 3                                      | ...                       | 9                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | 4                            | 2                            | ...          | ...                                 | ...             | ...                        | ...    | 19                            |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | ...                                    | ...                       | 4                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 3                            | ...          | ...                                 | ...             | ...                        | ...    | 7                             |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | ...                                      | 1                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 1                             |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | ...                           |                                     |
| Rainford ...                      | }             | Agreement with Liverpool C.B.                                                      | (a)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | ...                           |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | ...                           |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | ...                           |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | ...                           |                                     |
| Rainford ...                      | }             | Agreement with Ormskirk                                                            | (a)                                                                                           | 41                                       | 19                                     | ...                       | 57                           | ...                   | ...                  | 5                         | ...                      | ...        | ...                    | ...         | ...                     | 22                           | 15                           | 1            | ...                                 | ...             | ...                        | ...    | 185                           |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | 3                                      | ...                       | 15                           | ...                   | ...                  | 1                         | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 16                           | 7            | ...                                 | ...             | ...                        | ...    | 43                            |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | ...                                      | 11                                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 14                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | 2                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 2                            | ...          | ...                                 | ...             | ...                        | ...    | 4                             |                                     |
| Rainford ...                      | }             | Agreement with Ormskirk                                                            | (a)                                                                                           | 12                                       | 47                                     | ...                       | 10                           | 1                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 1                       | 4                            | 2                            | ...          | ...                                 | ...             | ...                        | ...    | 77                            |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | 1                                      | ...                       | 5                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 3                            | ...          | ...                                 | ...             | ...                        | ...    | 10                            |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | ...                                      | 25                                     | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 27                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | 1                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 1                             |                                     |
| Rainford ...                      | }             | Agreement with Ormskirk                                                            | (a)                                                                                           | 9                                        | 3                                      | ...                       | 15                           | 2                     | ...                  | ...                       | ...                      | ...        | ...                    | ...         | 1                       | 5                            | 4                            | ...          | ...                                 | ...             | ...                        | ...    | 45                            |                                     |
|                                   |               |                                                                                    | (b)                                                                                           | ...                                      | 1                                      | ...                       | 7                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 4                            | 2            | ...                                 | ...             | ...                        | ...    | 16                            |                                     |
|                                   |               |                                                                                    | (c)                                                                                           | ...                                      | 3                                      | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | 2                            | ...          | ...                                 | ...             | ...                        | ...    | 18                            |                                     |
|                                   |               |                                                                                    | (d)                                                                                           | ...                                      | ...                                    | ...                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...    | 2                             |                                     |

TABLE 6—continued.

| DISTRICT.               | Nature of Hospital Accommodation.                                     |                                        | Infectious Diseases.                                                                          |                |                                          |                                        |                         |                           |                              |                       |                      |                          |                          |            |                        |             |                         |                             |                              |              |                                     | Disinfection. | No. of houses or rooms disinfected. |                 |                             |
|-------------------------|-----------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|-------------------------|---------------------------|------------------------------|-----------------------|----------------------|--------------------------|--------------------------|------------|------------------------|-------------|-------------------------|-----------------------------|------------------------------|--------------|-------------------------------------|---------------|-------------------------------------|-----------------|-----------------------------|
|                         |                                                                       |                                        | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                         |                           |                              |                       |                      |                          |                          |            |                        |             |                         |                             |                              |              |                                     |               |                                     |                 |                             |
|                         |                                                                       |                                        | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (Including Membranous Group). | Enteric Fever (Including Paratyphoid). | Acute Primary Pneumonia | Acute Influenza Pneumonia | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). |               |                                     | Whooping Cough. | Diphtheria (under 2 years). |
| *Standish-with-Langtree | For ordinary infectious diseases.                                     | For Smallpox.                          | (a)                                                                                           | 10             | 1                                        | ...                                    | 26                      | 2                         | 1                            | ...                   | ...                  | ...                      | ...                      | 2          | 10                     | 1           | 3                       | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 56              |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | ...                                      | 1†                                     | 10                      | 3a                        | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 14                          |
|                         |                                                                       |                                        | (c)                                                                                           | ...            | ...                                      | ...                                    | ...                     | 2                         | 1                            | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 4                           |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                     | 2                         | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 2                           |
| Stretford (B)           | Salford C.B.                                                          | Bury and District Joint Hospital       | (a)                                                                                           | 137            | 59                                       | 2                                      | 71                      | 6                         | ...                          | ...                   | ...                  | ...                      | 1                        | 22         | 67                     | 21          | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 386             |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | 6                                        | ...                                    | 44                      | 1                         | ...                          | ...                   | ...                  | ...                      | 1†                       | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 107             |                             |
|                         |                                                                       |                                        | (c)                                                                                           | 60             | 40                                       | 1                                      | ...                     | 4                         | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | 6                      | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 111                         |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | 6                                        | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | 2                      | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 8                           |
| Swinton and Pendlebury  | At Leigh Joint Hospital                                               | Joint at Linnyshaw Moss—20 beds        | (a)                                                                                           | 103            | 156                                      | 4                                      | 94                      | 5                         | 5                            | 5                     | ...                  | ...                      | 8                        | 26         | 42                     | 25          | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 473             |                             |
|                         |                                                                       |                                        | (b)                                                                                           | 1              | 4                                        | ...                                    | 35                      | 2                         | 2                            | ...                   | ...                  | ...                      | 2†                       | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 68                          |
|                         |                                                                       |                                        | (c)                                                                                           | 54             | 101                                      | 2                                      | ...                     | 1                         | 3                            | 1                     | ...                  | ...                      | ...                      | ...        | 10                     | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 172                         |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | 3                                        | ...                                    | ...                     | 1                         | 2                            | ...                   | ...                  | ...                      | ...                      | 1          | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 7                           |
| Worsley                 | At Leigh Joint Hospital                                               | Joint at Linnyshaw Moss—20 beds        | (a)                                                                                           | 29             | 11                                       | ...                                    | 8                       | 2                         | ...                          | ...                   | ...                  | ...                      | 1                        | 4          | 17                     | 14          | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 86              |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | ...                                      | ...                                    | 11                      | ...                       | 1†                           | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 23                          |
|                         |                                                                       |                                        | (c)                                                                                           | 8              | 9                                        | ...                                    | ...                     | 1                         | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | 2           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 20                          |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |
| Trawden                 | At Colne Borough Hospitals                                            | ...                                    | (a)                                                                                           | 17             | ...                                      | ...                                    | 2                       | 1                         | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | 2                      | 1           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 23              |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | ...                                      | ...                                    | 2                       | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | 1           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 4                           |
|                         |                                                                       |                                        | (c)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |
| Turton                  | Arrangement with Darwen (B) and with Bury, etc., Joint Hospital Board | 2 beds (Bury, etc., Joint Hospital)    | (a)                                                                                           | 49             | 5                                        | ...                                    | 21                      | ...                       | ...                          | 1                     | ...                  | ...                      | ...                      | 4          | 9                      | 2           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 91              |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | ...                                      | ...                                    | 9                       | ...                       | ...                          | ...                   | ...                  | ...                      | 1†                       | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 18                          |
|                         |                                                                       |                                        | (c)                                                                                           | 28             | 5                                        | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | 1           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 34                          |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |
| Upholland               | At Wigan C.B. Hospital                                                | Tent for 24 beds erected when required | (a)                                                                                           | 6              | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | 1                        | 1          | 3                      | 1           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 12              |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | ...                                      | ...                                    | 8                       | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 9                           |
|                         |                                                                       |                                        | (c)                                                                                           | 2              | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 2                           |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |
| Urmston                 | At Salford C.B. Hospitals                                             | Bury and District Joint Hospital       | (a)                                                                                           | 47             | 21                                       | 1                                      | 9                       | 7                         | 2                            | ...                   | ...                  | ...                      | 1                        | 7          | 22                     | 16          | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 133             |                             |
|                         |                                                                       |                                        | (b)                                                                                           | 1              | 3                                        | ...                                    | 9                       | 1                         | ...                          | ...                   | ...                  | ...                      | 1†                       | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 27                          |
|                         |                                                                       |                                        | (c)                                                                                           | 33             | 19                                       | 1                                      | ...                     | 7                         | 2                            | ...                   | ...                  | ...                      | ...                      | ...        | 3                      | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 66                          |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | 3                                        | 1                                      | ...                     | 1                         | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 5                           |
| Walton-le-Dale          | 20 beds (School Lane)                                                 | 8 beds (Bradkirk)                      | (a)                                                                                           | 39             | ...                                      | ...                                    | 10                      | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | 1          | 1                      | 6           | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | 92              |                             |
|                         |                                                                       |                                        | (b)                                                                                           | ...            | ...                                      | ...                                    | 10                      | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | 4           | 2                       | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | 17                          |
|                         |                                                                       |                                        | (c)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |
|                         |                                                                       |                                        | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                     | ...                       | ...                          | ...                   | ...                  | ...                      | ...                      | ...        | ...                    | ...         | ...                     | ...                         | ...                          | ...          | ...                                 | ...           | ...                                 | ...             | ...                         |

| DISTRICT.              | Nature of Hospital Accommodation.                                                                        |                                             | Infectious Diseases.                                                                          |                |                                          |                                        |                          |                              |                       |                      |                           |               |            |            |                        |             |                         |                              | Disinfection.                |              |                                     |                 |                            |       |                                  |                                     |     |     |     |
|------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|--------------------------|------------------------------|-----------------------|----------------------|---------------------------|---------------|------------|------------|------------------------|-------------|-------------------------|------------------------------|------------------------------|--------------|-------------------------------------|-----------------|----------------------------|-------|----------------------------------|-------------------------------------|-----|-----|-----|
|                        |                                                                                                          |                                             | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                          |                              |                       |                      |                           |               |            |            |                        |             |                         |                              |                              |              |                                     |                 |                            |       |                                  |                                     |     |     |     |
|                        | For ordinary infectious diseases.                                                                        | For Smallpox.                               | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Group). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia. | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis. | Lethargia. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. | Diarrhoea (under 2 years). | Total | Apparatus and where situated.    | No. of houses or rooms disinfected. |     |     |     |
| Waterloo-with-Seaforth | At Liverpool Borough Hospitals                                                                           | ...                                         | (a)                                                                                           | 136            | 55                                       | 2                                      | 54                       | 3                            | ...                   | ...                  | ...                       | ...           | 1          | ...        | 1                      | 16          | 52                      | 10                           | ...                          | ...          | 89                                  | ...             | 10                         | 429   | Steam—Council's Yard             | 281                                 |     |     |     |
| Whitworth              | Arrangement with Rochdale C.B.                                                                           | At Bury, &c., Joint Hospital                | (b)                                                                                           | ...            | 6                                        | ...                                    | 32                       | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | 7                            | ...                          | ...          | ...                                 | ...             | 3                          | 83    | No proper apparatus              | 96                                  |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 89             | 49                                       | ...                                    | ...                      | 3                            | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | 1                          | 146   |                                  |                                     |     |     |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | 4                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | 1     |                                  |                                     | 6   |     |     |
|                        |                                                                                                          |                                             | (a)                                                                                           | 15             | 19                                       | ...                                    | 12                       | 1                            | ...                   | ...                  | ...                       | ...           | ...        | ...        | 1+                     | ...         | ...                     | 1                            | ...                          | 6            | ...                                 | ...             | ...                        | ...   |                                  |                                     | 48  |     |     |
| Widnes (B)             | 36 beds (Crow Wood)                                                                                      | 8 beds (Barrow's Green, temporary building) | (b)                                                                                           | ...            | 5                                        | ...                                    | 7                        | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | 1               | 2                          | 23    | Steam—Hospital                   | ...                                 | 446 |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 1              | 11                                       | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     |     | 12  |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     |     | ... | ... |
|                        |                                                                                                          |                                             | (a)                                                                                           | 98             | 114                                      | ...                                    | 178                      | 6                            | ...                   | ...                  | 4                         | ...           | 1          | ...        | 2                      | 34          | 53                      | 43                           | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     |     | 533 |     |
| Withnell ...           | 30 beds (Hospital not been used for many years). Arrangement with Blackburn C.B. and Chorley Joint Board | 1 bed at Finnington (Blackburn)             | (b)                                                                                           | ...            | 4                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   | No proper apparatus              | 2                                   |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... |     |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... |     |
|                        |                                                                                                          |                                             | (a)                                                                                           | 1              | ...                                      | ...                                    | 3                        | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | 2            | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 7   |     |
| Barton-upon-Irwell (R) | At Salford C.B. Hospitals (5 beds)                                                                       | Hyde (2 beds)                               | (b)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   | Steam—Salford C.B.               | ...                                 |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 23             | 2                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 5   |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... | 26  |
|                        |                                                                                                          |                                             | (a)                                                                                           | 36             | 5                                        | 1                                      | 12                       | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | 5                            | 7            | 4                                   | ...             | ...                        | ...   |                                  |                                     | ... | 70  |     |
| Blackburn (R)          | Blackburn C.B. and Chorley Joint Hospital                                                                | 1 bed at Finnington (Blackburn)             | (b)                                                                                           | ...            | ...                                      | ...                                    | 4                        | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | 1                            | ...          | ...                                 | 1               | ...                        | 12    | Steam—Blackburn—(special cases.) | 49                                  |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 12             | 4                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 16  |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... | ... |
|                        |                                                                                                          |                                             | (a)                                                                                           | 25             | 2                                        | ...                                    | 12                       | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | 19          | ...                     | ...                          | 10                           | 11           | 7                                   | ...             | ...                        | ...   |                                  |                                     | ... | 106 |     |
| Clitheroe (R)          | Nil ...                                                                                                  | Arrangement with Blackburn C.B.—5 beds      | (b)                                                                                           | 1              | ...                                      | ...                                    | 5                        | 1                            | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   | Steam—Clitheroe (B)              | 15                                  |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 1              | 1                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 10  |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | ...                                      | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 2   |     |
|                        |                                                                                                          |                                             | (a)                                                                                           | 5              | 16                                       | ...                                    | 3                        | 1                            | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | 8                            | 1            | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 34  |     |
| Lancaster (R)          | At Lancaster Borough Hospitals                                                                           | ...                                         | (b)                                                                                           | ...            | 2                                        | ...                                    | 5                        | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   | No proper apparatus              | 23                                  |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 5              | 16                                       | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 16  |     |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | 2                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | 21  |     |
|                        |                                                                                                          |                                             | (a)                                                                                           | 6              | 6                                        | 1                                      | 2                        | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | 3                            | 3            | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... | 2   |
| Lunesdale (R)          | 12 beds (Farleton)                                                                                       | Nil ...                                     | (b)                                                                                           | ...            | 2                                        | ...                                    | 3                        | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   | No proper apparatus              | 14                                  |     |     |     |
|                        |                                                                                                          |                                             | (c)                                                                                           | 6              | 6                                        | 1                                      | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... | 8   |
|                        |                                                                                                          |                                             | (d)                                                                                           | ...            | 2                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... | 13  |
|                        |                                                                                                          |                                             | (a)                                                                                           | 21             | 8                                        | ...                                    | ...                      | ...                          | ...                   | ...                  | ...                       | ...           | ...        | ...        | ...                    | ...         | ...                     | ...                          | ...                          | ...          | ...                                 | ...             | ...                        | ...   |                                  |                                     | ... | ... | 2   |

a—1 death of case not notified. b—District abolished 1st April, 1933.



TABLE 6—continued.

| DISTRICT.            | Nature of Hospital Accommodation.                       |                                                                                                           | Infectious Diseases.                                                                          |                |                                          |                                        |                         |                              |                       |                      |                           |                          |            |                        |             |                          |                              |                              |              |                                     |                 | Disinfection. | No. of houses or rooms disinfected. |                               |                                       |       |     |     |
|----------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|------------------------------------------|----------------------------------------|-------------------------|------------------------------|-----------------------|----------------------|---------------------------|--------------------------|------------|------------------------|-------------|--------------------------|------------------------------|------------------------------|--------------|-------------------------------------|-----------------|---------------|-------------------------------------|-------------------------------|---------------------------------------|-------|-----|-----|
|                      |                                                         |                                                                                                           | Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital. |                |                                          |                                        |                         |                              |                       |                      |                           |                          |            |                        |             |                          |                              |                              |              |                                     |                 |               |                                     |                               |                                       |       |     |     |
|                      |                                                         |                                                                                                           | Smallpox.                                                                                     | Scarlet Fever. | Diphtheria (including Membranous Croup). | Enteric Fever (including Paratyphoid). | Acute Primary Pneumonia | Puerperal Fever and Pyrexia. | Cerebro-spinal Fever. | Acute Poliomyelitis. | Acute Polio-encephalitis. | Encephalitis Lethargica. | Dysentery. | Ophthalmia Neonatorum. | Erysipelas. | §Pulmonary Tuberculosis. | Other forms of Tuberculosis. | Malaria (contracted abroad). | Chicken-pox. | Measles (excluding German Measles). | Whooping Cough. |               |                                     | Diphtheria (under 2 years).   | Total.                                |       |     |     |
| Warrington (R) ...   | For ordinary infectious diseases.                       | For Smallpox.                                                                                             | (a) ...                                                                                       | 38             | 14                                       | ...                                    | 46                      | 3                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | 127                                 | Apparatus and where situated. | 57                                    |       |     |     |
| West Lancashire (R)  | At Warrington C.B. and Newton-in-Makerfield             | At Warrington C.B.                                                                                        | (b) ...                                                                                       | ...            | 1                                        | ...                                    | 10                      | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | 22                                  |                               |                                       |       |     |     |
|                      |                                                         |                                                                                                           | (c) ...                                                                                       | 19             | 10                                       | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |                               |                                       | 31    |     |     |
|                      |                                                         |                                                                                                           | (d) ...                                                                                       | ...            | 1                                        | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 |                               |                                       | 1     |     |     |
|                      |                                                         |                                                                                                           | (a) ...                                                                                       | 36             | 25                                       | 1                                      | 41                      | 2                            | ...                   | ...                  | 1                         | ...                      | 1+         | ...                    | 3           | 15                       | 21                           | 12                           | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | 157                                   |       |     |     |
| Whiston (R) ...      | 35 beds—(Aughton)                                       | Arrangement with Liverpool Corporation, and tent available in case of emergency.                          | (b) ...                                                                                       | 1              | 2                                        | ...                                    | 15                      | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | 141                                   |       |     |     |
|                      |                                                         |                                                                                                           | (c) ...                                                                                       | 31             | 25                                       | 1                                      | ...                     | 2                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | 33                                    |       |     |     |
|                      |                                                         |                                                                                                           | (d) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 63    |     |     |
|                      |                                                         |                                                                                                           | (a) ...                                                                                       | 24             | 12                                       | ...                                    | 9                       | 2                            | ...                   | ...                  | ...                       | 1                        | ...        | 34                     | ...         | 9                        | 24                           | 14                           | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 129   |     |     |
| *Wigan (R) ...       | 36 beds ...                                             | 20 beds (As from 1st March, 1934, hospital discontinued — by arrangement — cases sent to Liverpool C.B.). | (b) ...                                                                                       | ...            | ...                                      | ...                                    | 12                      | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 61    |     |     |
|                      |                                                         |                                                                                                           | (c) ...                                                                                       | 21             | 11                                       | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 33    |     |     |
|                      |                                                         |                                                                                                           | (d) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 32    |     |     |
|                      |                                                         |                                                                                                           | (a) ...                                                                                       | 16             | ...                                      | ...                                    | 15                      | 2                            | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | 1           | 10                       | 7                            | 8                            | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 59    |     |     |
| County, 1933 :—      | Cases may be sent to Wigan C.B. Hospital by arrangement | Nil ...                                                                                                   | (b) ...                                                                                       | ...            | ...                                      | ...                                    | 6                       | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 18    |     |     |
|                      |                                                         |                                                                                                           | (c) ...                                                                                       | 4              | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 13    |     |     |
|                      |                                                         |                                                                                                           | (d) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | 4     |     |     |
|                      |                                                         |                                                                                                           | (a) ...                                                                                       | 5127           | 1639                                     | 55                                     | 3456                    | 285a                         | 39                    | 72                   | 16                        | 7                        | 20         | 98                     | 139         | 790                      | 1633                         | 904                          | 2            | 596                                 | 378             | 360           | 10                                  | 15627                         | Total houses or rooms disinfected ... | 10181 |     |     |
| Total cases notified | "                                                       | "                                                                                                         | (b) ...                                                                                       | 31             | 109                                      | 11                                     | 1367b                   | 39                           | 27                    | 16                   | 7                         | 56                       | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           |                                       |       | ... |     |
|                      |                                                         |                                                                                                           | (c) ...                                                                                       | 2816           | 1302                                     | 37                                     | ...                     | 120                          | 27                    | 21                   | 3                         | 7                        | 2          | 16                     | 105         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           |                                       |       | ... | ... |
|                      |                                                         |                                                                                                           | (d) ...                                                                                       | 13             | 69                                       | 6                                      | ...                     | 11                           | 14                    | 4                    | 1                         | 6                        | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           |                                       |       | ... | ... |
| County, 1933 :—      | Deaths in hospital                                      | "                                                                                                         | (b) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | ...   |     |     |
|                      |                                                         |                                                                                                           | (c) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | ...   | ... |     |
|                      |                                                         |                                                                                                           | (d) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | ...   | ... |     |
|                      |                                                         |                                                                                                           | (a) ...                                                                                       | ...            | ...                                      | ...                                    | ...                     | ...                          | ...                   | ...                  | ...                       | ...                      | ...        | ...                    | ...         | ...                      | ...                          | ...                          | ...          | ...                                 | ...             | ...           | ...                                 | ...                           | ...                                   | ...   | ... |     |

a.—48 cases notified as puerperal fever and 237 as puerperal pyrexia. b.—Deaths—Pneumonia (all forms).

The following table, which is compiled from the information supplied by local Medical Officers of Health in their annual reports, shows the number of notifications (excluding tuberculosis) in the year 1933, classified in age periods, the number of cases admitted to hospital, and the total deaths from the notifiable diseases :—

### NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1933.

| NOTIFIABLE DISEASES.                                  | TOTAL CASES NOTIFIED.    |         |     |     |     |     |       |       |       |       |       |       |              |       | TOTAL CASES RE-<br>MOVED TO HOSPITAL. | TOTAL DEATHS. |
|-------------------------------------------------------|--------------------------|---------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|--------------|-------|---------------------------------------|---------------|
|                                                       | Total Cases at all Ages. | YEARS.  |     |     |     |     |       |       |       |       |       |       |              |       |                                       |               |
|                                                       |                          | Und'r 1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-10  | 10-15 | 15-20 | 20-35 | 35-45 | 45-65 | 65 and over. |       |                                       |               |
| Smallpox ... ..                                       | 8                        | ...     | ... | ... | ... | ... | ...   | 1     | ...   | 6     | 1     | ...   | ...          | 8     | ...                                   |               |
| Scarlet Fever ... ..                                  | 5,127                    | 26      | 85  | 198 | 351 | 502 | 2,434 | 1,018 | 227   | 210   | 62    | 14    | ...          | 2,816 | 31                                    |               |
| Diphtheria, including Membranous Croup                | 1,639                    | 15      | 29  | 55  | 91  | 102 | 665   | 359   | 115   | 150   | 38    | 18    | 2            | 1,302 | 109                                   |               |
| Enteric Fever (including Paratyphoid) ...             | 55                       | ...     | ... | ... | 1   | ... | 6     | 6     | 11    | 18    | 3     | 9     | 1            | 37    | 11                                    |               |
| Acute Primary Pneumonia<br>Acute Influenzal Pneumonia | 3,456                    | 151     | 209 | 152 | 127 | 110 | 327   | 160   | 176   | 591   | 471   | 702   | 280          | ...   | 1367*                                 |               |
| Puerperal Fever ... ..                                | 48                       | ...     | ... | ... | ... | ... | ...   | ...   | 2     | 36    | 10    | ...   | ...          | }120  | 39†                                   |               |
| Puerperal Pyrexia ... ..                              | 237                      | ...     | ... | ... | ... | ... | ...   | ...   | 20    | 176   | 41    | ...   | ...          |       |                                       |               |
| Cerebro-spinal Fever ...                              | 39                       | 2       | 2   | 3   | ... | 1   | 7     | 7     | 5     | 10    | 1     | 1     | ...          | 27    | 27                                    |               |
| Acute Poliomyelitis ... ..                            | 72                       | 7       | 10  | 13  | 7   | 5   | 18    | 8     | 2     | 2     | ...   | ...   | ...          | 21    | 16                                    |               |
| Acute Polio-encephalitis                              | 16                       | 1       | 3   | ... | 2   | 2   | ..    | 3     | 1     | 3     | 1     | ...   | ...          | 3     | 7                                     |               |
| Encephalitis Lethargica                               | 20                       | 2       | ... | ... | ... | 2   | ...   | 3     | 2     | 5     | ...   | 3     | 3            | 7     | 56                                    |               |
| Dysentery ... ..                                      | 98                       | ...     | ... | 2   | 3   | 2   | ...   | ...   | 12    | 19    | 27    | 33    | ...          | 2     | ...                                   |               |
| Ophthalmia Neonat'm                                   | 139                      | 139     | ... | ... | ... | ... | ...   | ...   | ...   | ...   | ...   | ...   | ...          | 16    | ...                                   |               |
| Erysipelas ... ..                                     | 790                      | 10      | 3   | 4   | 2   | ... | 18    | 20    | 27    | 114   | 159   | 310   | 123          | 105   | ...                                   |               |
| Malaria (contracted abroad) ... ..                    | 2                        | ...     | ... | ... | ... | ... | ...   | ...   | ...   | 2     | ...   | ...   | ...          | ...   | ...                                   |               |
| ‡Chicken-pox ... ..                                   | 596                      | ...     | ... | ... | ... | ... | ...   | ...   | ...   | ...   | ...   | ...   | ...          | ...   | ...                                   |               |
| ‡Measles (excluding German Measles) ...               | 378                      | ...     | ... | ... | ... | ... | ...   | ...   | ...   | ...   | ...   | ...   | ...          | 1     | 59§                                   |               |
| ‡Whooping Cough ... ..                                | 360                      | ...     | ... | ... | ... | ... | ...   | ...   | ...   | ...   | ...   | ...   | ...          | 4     | 89§                                   |               |
| ‡Diarrhœa (under 2 yrs.)                              | 10                       | ...     | ... | ... | ... | ... | ...   | ...   | ...   | ...   | ...   | ...   | ...          | 1     | 108§                                  |               |

\* Deaths from pneumonia (all forms). † Deaths classified together as puerperal sepsis; ‡ In 1933 chicken-pox was notifiable in 11 districts, measles in 6 districts, whooping cough in 4 districts, diarrhœa in 1 district. § In whole County.

The tabular statement below compares the notifications in 1933 with the preceding year :—

|                                                               | Year 1932. | Year 1933. |
|---------------------------------------------------------------|------------|------------|
| Smallpox ... ..                                               | 4          | 8          |
| Scarlet Fever ... ..                                          | 3,349      | 5,127      |
| Diphtheria ... ..                                             | 1,550      | 1,639      |
| Enteric Fever ... ..                                          | 98         | 55         |
| Acute Primary Pneumonia and Acute Influenzal Pneumonia ... .. | 2,480      | 3,456      |
| Puerperal Fever ... ..                                        | 56         | 48         |
| Puerperal Pyrexia ... ..                                      | 203        | 237        |
| Cerebro-Spinal Fever ... ..                                   | 54         | 39         |
| Acute Poliomyelitis ... ..                                    | 23         | 72         |
| Acute Polio-Encephalitis ... ..                               | 6          | 16         |
| Encephalitis Lethargica ... ..                                | 36         | 20         |
| Dysentery ... ..                                              | 125        | 98         |
| Ophthalmia Neonatorum ... ..                                  | 133        | 139        |
| Erysipelas ... ..                                             | 664        | 790        |
| Malaria (contracted abroad) ... ..                            | 3          | 2          |
| *Chicken-pox ... ..                                           | 1,119      | 596        |
| *Measles ... ..                                               | 1,640      | 378        |
| *Whooping Cough ... ..                                        | 537        | 360        |
| *Diarrhœa (under 2 years) ... ..                              | 2          | 10         |

\* See note (‡) to Table above.

**Death-rates from the Principal Infectious Diseases.**—The table below gives the death-rates per 1,000 of the population from the principal infectious diseases for the year 1933, and the preceding thirty-eight years, showing the five years' averages.

### PRINCIPAL INFECTIOUS DISEASES.

Annual Death-rate per 1,000 of the population.

| YEAR.                                 | Smallpox.     | Scarlet Fever. | *Diphtheria. | †Enteric Fever. | Measles.    | Whooping Cough. | ‡Diarrhœa, &c. |
|---------------------------------------|---------------|----------------|--------------|-----------------|-------------|-----------------|----------------|
| 1895 ... ..                           | 0·009         | 0·23           | 0·10         | 0·23            | 0·50        | 0·38            | 0·95           |
| 1896 ... ..                           | 0·005         | 0·24           | 0·09         | 0·23            | 0·49        | 0·36            | 0·48           |
| 1897 ... ..                           | Nil.          | 0·15           | 0·08         | 0·19            | 0·66        | 0·27            | 0·77           |
| 1898 ... ..                           | 0·0005        | 0·10           | 0·07         | 0·26            | 0·25        | 0·19            | 1·00           |
| 1899 ... ..                           | 0·0005        | 0·18           | 0·18         | 0·24            | 0·44        | 0·26            | 1·05           |
| <b>Average 5 years, 1895–1899 ...</b> | <b>0·003</b>  | <b>0·18</b>    | <b>0·10</b>  | <b>0·23</b>     | <b>0·46</b> | <b>0·29</b>     | <b>0·85</b>    |
| 1900 ... ..                           | 0·0015        | 0·18           | 0·26         | 0·20            | 0·43        | 0·37            | 0·60           |
| 1901 ... ..                           | Nil.          | 0·18           | 0·34         | 0·20            | 0·18        | 0·20            | 0·95           |
| 1902 ... ..                           | 0·0119        | 0·20           | 0·30         | 0·16            | 0·35        | 0·19            | 0·28           |
| 1903 ... ..                           | 0·0366        | 0·18           | 0·19         | 0·15            | 0·37        | 0·26            | 0·40           |
| 1904 ... ..                           | 0·0116        | 0·18           | 0·15         | 0·12            | 0·43        | 0·35            | 0·66           |
| <b>Average 5 years, 1900–1904 ...</b> | <b>0·0123</b> | <b>0·18</b>    | <b>0·24</b>  | <b>0·16</b>     | <b>0·35</b> | <b>0·27</b>     | <b>0·57</b>    |
| 1905 ... ..                           | 0·0033        | 0·13           | 0·15         | 0·14            | 0·26        | 0·15            | 0·52           |
| 1906 ... ..                           | Nil.          | 0·11           | 0·16         | 0·14            | 0·36        | 0·13            | 0·79           |
| 1907 ... ..                           | 0·0005        | 0·09           | 0·15         | 0·09            | 0·37        | 0·28            | 0·26           |
| 1908 ... ..                           | 0·0005        | 0·10           | 0·16         | 0·12            | 0·18        | 0·24            | 0·54           |
| 1909 ... ..                           | Nil.          | 0·12           | 0·15         | 0·10            | 0·35        | 0·14            | 0·18           |
| <b>Average 5 years, 1905–1909 ...</b> | <b>0·0008</b> | <b>0·11</b>    | <b>0·15</b>  | <b>0·11</b>     | <b>0·30</b> | <b>0·18</b>     | <b>0·45</b>    |
| 1910 ... ..                           | Nil.          | 0·10           | 0·11         | 0·10            | 0·15        | 0·23            | 0·29           |
| 1911 ... ..                           | Nil.          | 0·08           | 0·14         | 0·12            | 0·29        | 0·15            | †1·43          |
| 1912 ... ..                           | Nil.          | 0·05           | 0·12         | 0·08            | 0·30        | 0·24            | 0·30           |
| 1913 ... ..                           | Nil.          | 0·05           | 0·11         | 0·10            | 0·31        | 0·13            | 0·85           |
| 1914 ... ..                           | Nil.          | 0·09           | 0·13         | 0·07            | 0·28        | 0·18            | 0·48           |
| <b>Average 5 years, 1910–1914 ...</b> | <b>Nil.</b>   | <b>0·07</b>    | <b>0·12</b>  | <b>0·09</b>     | <b>0·26</b> | <b>0·18</b>     | <b>0·67</b>    |
| 1915 ... ..                           | Nil.          | 0·08           | 0·14         | 0·07            | 0·49        | 0·20            | 0·52           |
| 1916 ... ..                           | 0·003         | 0·06           | 0·15         | 0·05            | 0·17        | 0·14            | †0·27          |
| 1917 ... ..                           | Nil.          | 0·03           | 0·13         | 0·04            | 0·27        | 0·11            | 0·18           |
| 1918 ... ..                           | Nil.          | 0·03           | 0·15         | 0·05            | 0·20        | 0·31            | 0·19           |
| 1919 ... ..                           | Nil.          | 0·04           | 0·13         | 0·02            | 0·07        | 0·05            | 0·16           |
| <b>Average 5 years, 1915–1919 ...</b> | <b>0·0006</b> | <b>0·04</b>    | <b>0·14</b>  | <b>0·04</b>     | <b>0·24</b> | <b>0·16</b>     | <b>0·26</b>    |
| 1920 ... ..                           | 0·0005        | 0·03           | 0·11         | 0·03            | 0·19        | 0·09            | 0·25           |
| 1921 ... ..                           | Nil.          | 0·03           | 0·09         | 0·02            | 0·04        | 0·15            | 0·27           |
| 1922 ... ..                           | 0·0005        | 0·05           | 0·08         | 0·02            | 0·20        | 0·12            | 0·13           |
| 1923 ... ..                           | Nil.          | 0·03           | 0·05         | 0·02            | 0·07        | 0·11            | 0·12           |
| 1924 ... ..                           | Nil.          | 0·02           | 0·05         | 0·01            | 0·14        | 0·13            | 0·13           |
| <b>Average 5 years, 1920–1924 ...</b> | <b>0·0002</b> | <b>0·03</b>    | <b>0·07</b>  | <b>0·02</b>     | <b>0·12</b> | <b>0·12</b>     | <b>0·18</b>    |
| 1925 ... ..                           | Nil.          | 0·03           | 0·06         | 0·009           | 0·10        | 0·13            | 0·13           |
| 1926 ... ..                           | 0·0005        | 0·01           | 0·05         | 0·008           | 0·09        | 0·13            | 0·11           |
| 1927 ... ..                           | 0·0005        | 0·01           | 0·06         | 0·01            | 0·09        | 0·06            | 0·09           |
| 1928 ... ..                           | 0·0027        | 0·01           | 0·06         | 0·01            | 0·05        | 0·05            | 0·08           |
| 1929 ... ..                           | 0·0016        | 0·01           | 0·06         | 0·008           | 0·04        | 0·15            | 0·08           |
| <b>Average 5 years, 1925–1929 ...</b> | <b>0·0010</b> | <b>0·01</b>    | <b>0·05</b>  | <b>0·009</b>    | <b>0·07</b> | <b>0·10</b>     | <b>0·09</b>    |
| 1930 ... ..                           | Nil.          | 0·02           | 0·06         | 0·008           | 0·11        | 0·03            | 0·08           |
| 1931 ... ..                           | Nil.          | 0·01           | 0·05         | 0·007           | 0·03        | 0·05            | 0·06           |
| 1932 ... ..                           | Nil.          | 0·01           | 0·06         | 0·007           | 0·07        | 0·06            | 0·05           |
| <b>1933</b>                           |               |                |              |                 |             |                 |                |
| Administrative County ...             | Nil.          | 0·01           | 0·06         | 0·006           | 0·03        | 0·04            | 0·05           |
| Urban Districts ...                   | Nil.          | 0·01           | 0·06         | 0·004           | 0·03        | 0·05            | 0·06           |
| Rural Districts ...                   | Nil.          | 0·007          | 0·05         | 0·01            | 0·007       | 0·04            | 0·03           |
| <b>England and Wales ...</b>          | <b>Nil.</b>   | <b>0·02</b>    | <b>0·06</b>  | <b>0·01</b>     | <b>0·05</b> | <b>0·05</b>     | <b>0·10</b>    |

\* In 1899 Membranous Croup included.

† Prior to 1911 the "Fever" death-rate included deaths from Typhus and Continued Fevers (if any).

‡ From 1911, Enteritis deaths included. Since 1916, the "Diarrhœa" death-rate includes deaths from Diarrhœa, &c., under two years of age only.



**Smallpox.**—In the year 1933 the cases of smallpox notified in the Administrative County area numbered 8, viz., Leigh (B) 5, Tyldesley 1, and Leigh (R) 2. The cases occurred in March and April. The patients were isolated in the joint hospital at Astley; all recovered. Prior to this outbreak, the last notified case in the County area was in June 1932. In that year 4 cases were reported, 1 case in 1931, 185 cases in 1930, 406 in 1929 and 563 in 1928.

The County Medical staff was called into consultation in certain other suspected cases of the disease.

Only 1 vaccination was performed in 1933 by local Medical Officers of Health, as such, under the Public Health (Smallpox Prevention) Regulations, 1917.

**Scarlet Fever.**—The incidence of scarlet fever in 1933 was greater than in any year since 1929, viz., 5,127 cases with 31 deaths, against 3,349 cases 22 deaths in 1932, 3,499 cases 26 deaths in 1931, 5,126 cases 38 deaths in 1930, and 6,205 cases 34 deaths in 1929.

The notifications were most numerous in the following districts:—Acerrington (B) 394 (3 deaths), Darwen (B) 230, Colne (B) 220 (7 deaths), Eccles (B) 163 (1 death), Horwich 152 (2 deaths), Farnworth 148 (1 death), Litherland 143, Great Crosby 140 (2 deaths), Stretford (B) 137, Waterloo-with-Seaforth 136, Ince-in-Makerfield 129 (1 death), Preston (R) 108 (1 death), and Swinton and Pendlebury 103 (1 death).

The notifications of this and other infectious diseases are grouped in age periods on page 173.

The mortality rate from scarlet fever in 1933 was only 0·01 per 1,000 of the population, the same rate as in 1932 and 1931; the case fatality rate was 0·60 per cent. Forty years ago the County scarlet fever death-rate equalled 0·32 per 1,000 of the population in a total of eight thousand notified cases, evidence of the lessened severity of the disease now prevailing.

Of the total scarlet fever notifications in 1933 (5,127), 2,816 or 54·9 per cent. were removed to isolation hospitals; in 10 districts 100 per cent. of removals took place, and in 24 other districts hospital isolation was practised in over 80 per cent. of the total cases.

“Return” cases were reported in 14 districts. School closure was adopted in 5 districts. In a large number of districts the Medical Officer of Health states that he found school intimations of infectious disease, or suspects, very useful.

**DICK TEST.**—It is reported that this test was carried out at Carnforth, Colne (B) few cases, Formby, Middleton (B), Ormskirk, Skelmersdale for cases admitted to hospital only, Swinton and Pendlebury, Waterloo-with-Seaforth, Warrington (R) and West Lancashire (R).

The Medical Research Council, in May, 1933, issued a report on the epidemiological study of scarlet fever in England and Wales since 1900. In the summary it is stated that “during the period studied no evidence has been found to prove that hospital isolation has been effective in reducing the prevalence or mortality from scarlet fever.”

**Diphtheria.**—In 1933 there was a slight increase as compared with the year 1932 in the number of diphtheria notifications, and a small decrease in the fatalities, viz., 1,639 cases and 109 deaths, against 1,550 cases with 115 deaths. The mortality rate per 1,000 of the population was 0·06, the same as last year, and the case fatality was 6·65 per cent. against 7·41 per cent. in 1932.

Cases were most numerous in Lancaster (B) 168 (5 deaths), Swinton and Pendlebury 156 (4 deaths), Widnes (B) 114 (3 deaths), Radcliffe 61 (1 death), Stretford (B) 59 (6 deaths), and Waterloo-with-Seaforth 55 (6 deaths).

Of the 1,639 cases notified, 1,316 were amongst children under the age of 15 years; the case fatalities in this group averaged 7·5 per cent., against 3·0 per cent. in cases over 15 years of age.

The clinical type of diphtheria seems to have been mostly faucial, some laryngeal.

Removals to hospitals (1,302) represented 79·4 per cent. of the total cases notified; the case fatality amongst these represented 5·29 per cent., against a fatality of 11·86 per cent. in the cases which remained at home.

From 96 districts, 6,499 throat swabs were sent for examination. Diphtheria antitoxin is readily available in most districts.

"Carriers" were responsible for outbreaks of this disease at Eccles (B), Golborne, Haslingden (B), Lancaster (B), Morecambe and Heysham (B), Skelmersdale, Warrington (R), West Lancashire (R), etc.

**SCHICK TEST.—IMMUNISATION.**—According to the local reports the Schick test was used at Colne (B), Eccles (B), Formby, Great Crosby, Lancaster (B), Middleton (B), Ormskirk, Skelmersdale, Stretford (B), Swinton and Pendlebury, Waterloo-with-Seaforth, Whitworth, West Lancashire (R), etc. Immunisation of susceptible children was carried out at Formby, Great Crosby, Haslingden (B), Lancaster (B), Lytham Saint Anne's (B), Middleton (B), Swinton and Pendlebury, Waterloo-with-Seaforth, West Lancashire (R), etc.

Many Medical Officers of Health testify to the value of the Schick test and immunisation. At Colne (B) a clinic was established at Bank House and 215 persons were immunised against diphtheria and 4 against scarlet fever; at Great Crosby 368 children were immunised. The Medical Officers of Health of Waterloo-with-Seaforth and West Lancashire (R) report no case of diphtheria has occurred amongst those who have been inoculated since the commencement of immunisation.

#### DIPHTHERIA IMMUNISATION IN THE URBAN DISTRICT OF URMSTON AND THE BARTON-UPON-IRWELL RURAL DISTRICT.

Acting on the instructions of the County Medical Officer of Health, Dr. A. V. Stocks, one of the Assistant County Medical Officers of Health, prepared the two following reports giving an account of an investigation and an immunisation campaign following an outbreak of diphtheria in the above-mentioned districts:—

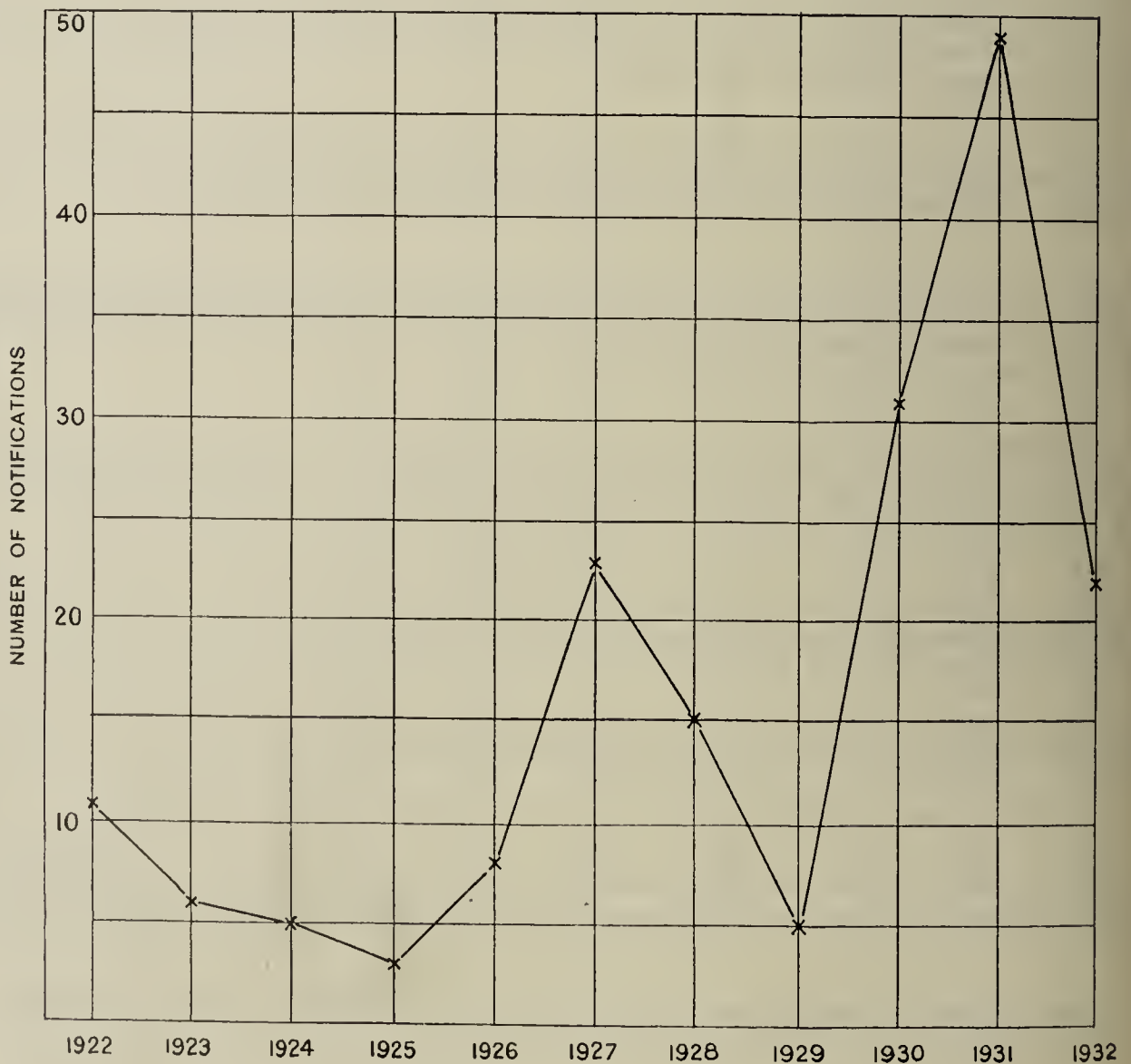
##### *First Report—*

Diphtheria has been increasingly prevalent in Urmston Urban District and Barton-upon-Irwell Rural District during the past few years (see Fig. 1) and reached its maximum, since 1922, in the autumn of 1931.

#### DIPHTHERIA NOTIFICATIONS.

*Urmston U.D.C. and Barton-upon-Irwell R.D.C., 1922–1932.*

FIGURE 1



A general rise in incidence in England and Wales has been recorded from 1928-30 followed by a fall in 1931 (1).

England and Wales :—

|      |     |     |             |     |     |        |
|------|-----|-----|-------------|-----|-----|--------|
| 1928 | ... | ... | total cases | ... | ... | 61,134 |
| 1929 | ... | ... | " "         | ... | ... | 62,774 |
| 1930 | ... | ... | " "         | ... | ... | 72,691 |
| 1931 | ... | ... | " "         | ... | ... | 50,236 |

In the Lancashire County area there was a progressive increase from 1926 to 1930 followed by a fall in 1931 (2).

Lancashire County Area :—

|      |     |     |             |     |     |       |
|------|-----|-----|-------------|-----|-----|-------|
| 1926 | ... | ... | total cases | ... | ... | 1,286 |
| 1927 | ... | ... | " "         | ... | ... | 1,567 |
| 1928 | ... | ... | " "         | ... | ... | 1,566 |
| 1929 | ... | ... | " "         | ... | ... | 1,620 |
| 1930 | ... | ... | " "         | ... | ... | 1,872 |
| 1931 | ... | ... | " "         | ... | ... | 1,576 |

The Attack Rate per 1,000 of the population of all ages in 1931 was as follows :—

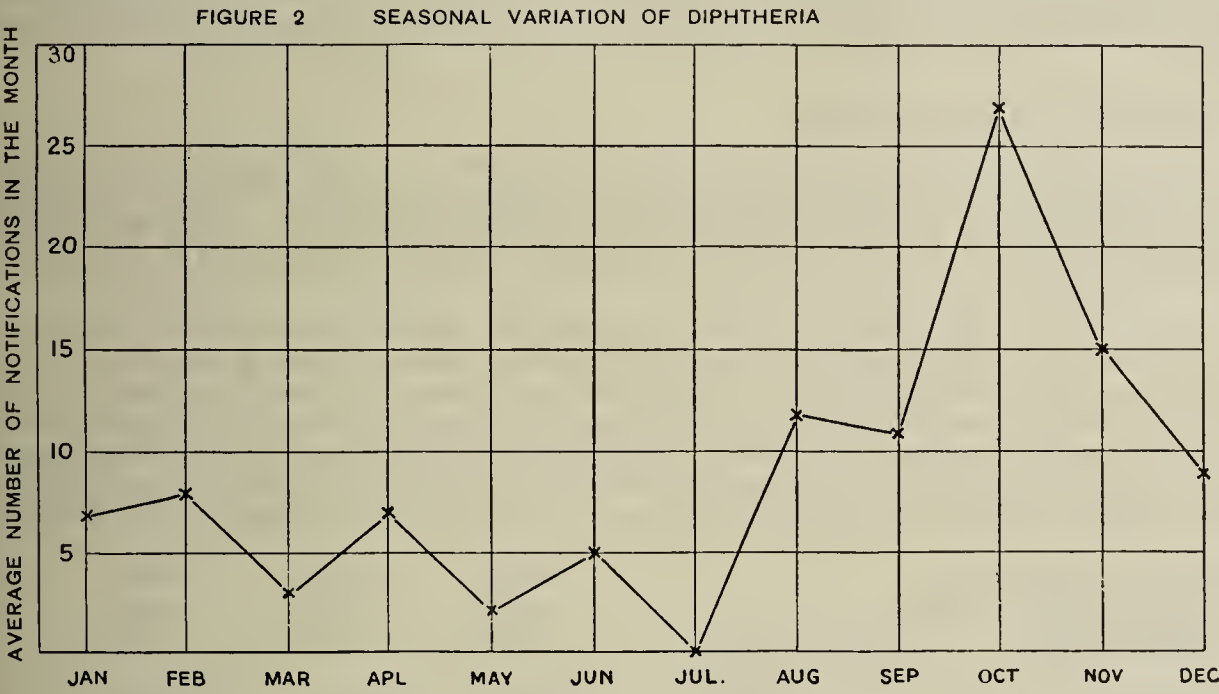
|                                   |     |     |     |      |
|-----------------------------------|-----|-----|-----|------|
| Urmston Urban District            | ... | ... | ... | 1.94 |
| Barton-upon-Irwell Rural District | ... | ... | ... | 1.97 |
| England and Wales (1930)...       | ... | ... | ... | 1.84 |

Seasonal Variations.

During 10 years there has been a marked tendency in Barton-upon-Irwell Rural District for cases to occur chiefly in the period August to December. (See Fig. 2.).

Barton-upon-Irwell R.D.C.

Distribution over the months of the year of the 106 notified cases of diphtheria in the 10 years, 1922-31.



The notifications in the 10 years 1922-31 numbered 106, distributed as follows over the months of the year :—

|           |     |     |     |     |     |     |
|-----------|-----|-----|-----|-----|-----|-----|
| January   | ... | ... | ... | ... | ... | 7   |
| February  | ... | ... | ... | ... | ... | 8   |
| March     | ... | ... | ... | ... | ... | 3   |
| April     | ... | ... | ... | ... | ... | 7   |
| May       | ... | ... | ... | ... | ... | 2   |
| June      | ... | ... | ... | ... | ... | 5   |
| July      | ... | ... | ... | ... | ... | —   |
| August    | ... | ... | ... | ... | ... | 12  |
| September | ... | ... | ... | ... | ... | 11  |
| October   | ... | ... | ... | ... | ... | 27  |
| November  | ... | ... | ... | ... | ... | 15  |
| December  | ... | ... | ... | ... | ... | 9   |
| Total     | ... | ... | ... | ... | ... | 106 |



In Urmston the notifications were most numerous in October and January.

Thorne in 1896 (3) described the seasonal variations in diphtheria incidence, and stated the maximum prevalence as being from the second week in September to mid-December, with a secondary rise in Spring about the end of March.

Age Distribution.

In the last 100 cases notified in Urmston and Barton-upon-Irwell the age distribution was as follows :—

| Ages.       |     |     |     |     |     | Cases. |
|-------------|-----|-----|-----|-----|-----|--------|
| 0— 4        | ... | ... | ... | ... | ... | 11     |
| 5— 9        | ... | ... | ... | ... | ... | 45     |
| 10—14       | ... | ... | ... | ... | ... | 21     |
| 15—19       | ... | ... | ... | ... | ... | 8      |
| 20—24       | ... | ... | ... | ... | ... | 7      |
| 25—29       | ... | ... | ... | ... | ... | 2      |
| 30—34       | ... | ... | ... | ... | ... | 2      |
| 35 and over | ... | ... | ... | ... | ... | 4      |
|             |     |     |     |     |     | 100    |

Out of this number there were 12 not yet attending school.  
65 in attendance at school.  
23 over school age.

Sex Distribution.

|         |     |     |     |     |     |    |
|---------|-----|-----|-----|-----|-----|----|
| Males   | ... | ... | ... | ... | ... | 53 |
| Females | ... | ... | ... | ... | ... | 47 |

Factors Favouring Infection.

1.—Surrounding townships, affected by diphtheria.

Stretford, adjoining Urmston, had 142 cases during 1931. Eccles, adjoining Barton-on-Irwell, had 63 during 1931 (4). Sale (three miles from Urmston) had numerous cases and a school closed.

2.—Rapid Development of Housing.

Dudley (5) has pointed out that not only are new arrivals in any type of community more prone to attack than the older residents, but also the introduction of an “unsalted” population into an established one appears to cause a general increase of prevalence among the rest of the community, with apparent gain of virulence of infection (according to Topley and Greenwood). (6).

Dudley further states that the increase in attack rates appears to be definitely related to the rate at which new susceptibles enter, and old immune residents leave, a community. As his researches are based on observations in residential institutions, they may be difficult to confirm in a larger urban community, but the points raised are apparently confirmed by observations in new housing estates, such as Dr. Thomas’s investigations at Dagenham. (6). In this connection it is, therefore, of interest to note that the Barton-on-Irwell Rural District showed the second largest number (1,558) of new houses erected in the County area for the eight years 1922–1929.

|                          |     |        |     |        |     |        |     |        |     |        |
|--------------------------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| New Houses erected. (7). |     |        |     | 1928   |     | 1929   |     | 1930   |     | 1931   |
| Barton-on-Irwell R.D.    | ... | ...    | ... | 201    | ... | 313    | ... | 272    | ... | 337    |
| Urmston U.D.             | ... | ...    | ... | 74     | ... | 154    | ... | 45     | ... | 76     |
| Population.              |     |        |     | 1921   |     | 1928   |     | 1929   |     | 1931   |
| Barton-on-Irwell R.D.    | ... | 10,110 | ... | 12,830 | ... | 13,500 | ... | 14,670 | ... | 15,711 |
| Urmston U.D.             | ... | 8,297  | ... | 8,020  | ... | 8,244  | ... | 8,872  | ... | 9,284  |

3.—“ Carriers.”

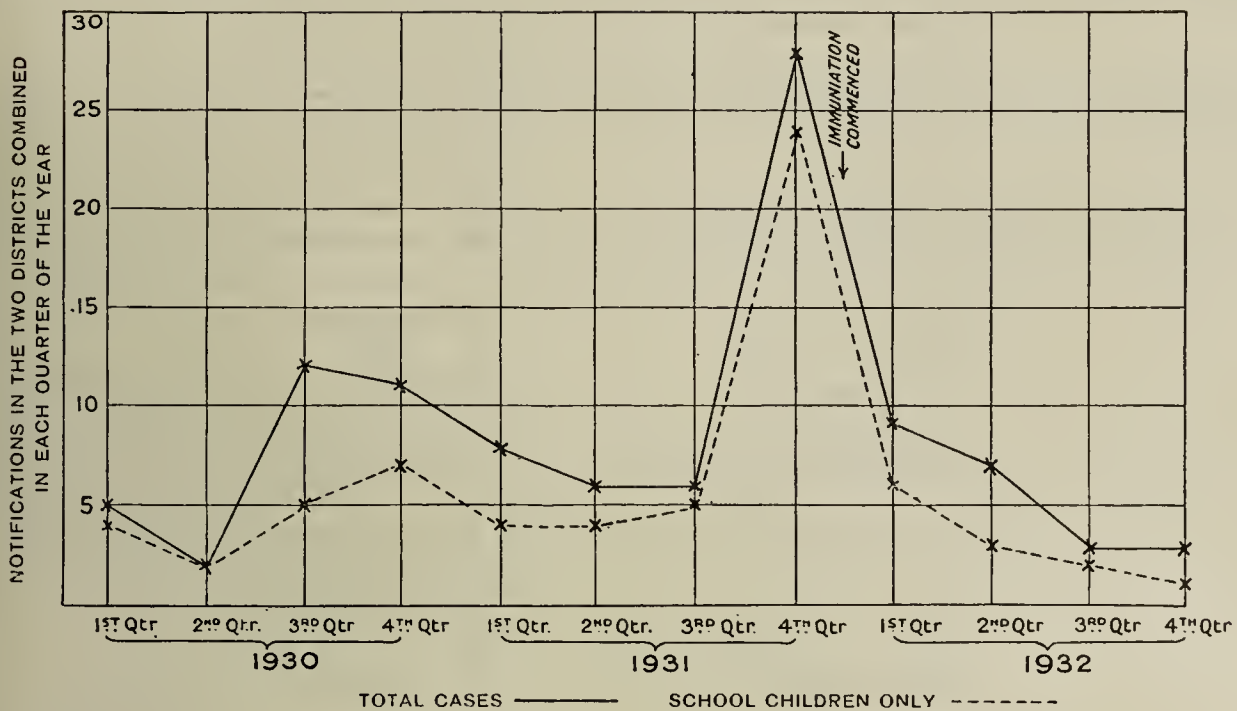
In addition to swabs taken by general practitioners, over 100 swabs were taken at various times in schools and clinics in the autumn and winter of 1931–32, and of these 10 were positive. Several of these were treated as mild cases of diphtheria, but others were undoubtedly carriers of virulent bacilli, as shown by virulence tests at the Public Health Laboratory.

Two Institutions were especially affected—Park Hospital having 13 cases of diphtheria from August 1930–April, 1931, and Urmston Council School having 31 cases from September, 1929–May, 1932.

Five other local schools had varying numbers of cases during the period covered by Fig. 3 (i.e., 1930–32) but no other school had more than seven notifications in the three-year period.

*Number of Diphtheria Notifications per quarter in Urmston U.D.C.  
and Barton-upon-Irwell R.D.C. (excluding Clifton), 1930-32.*

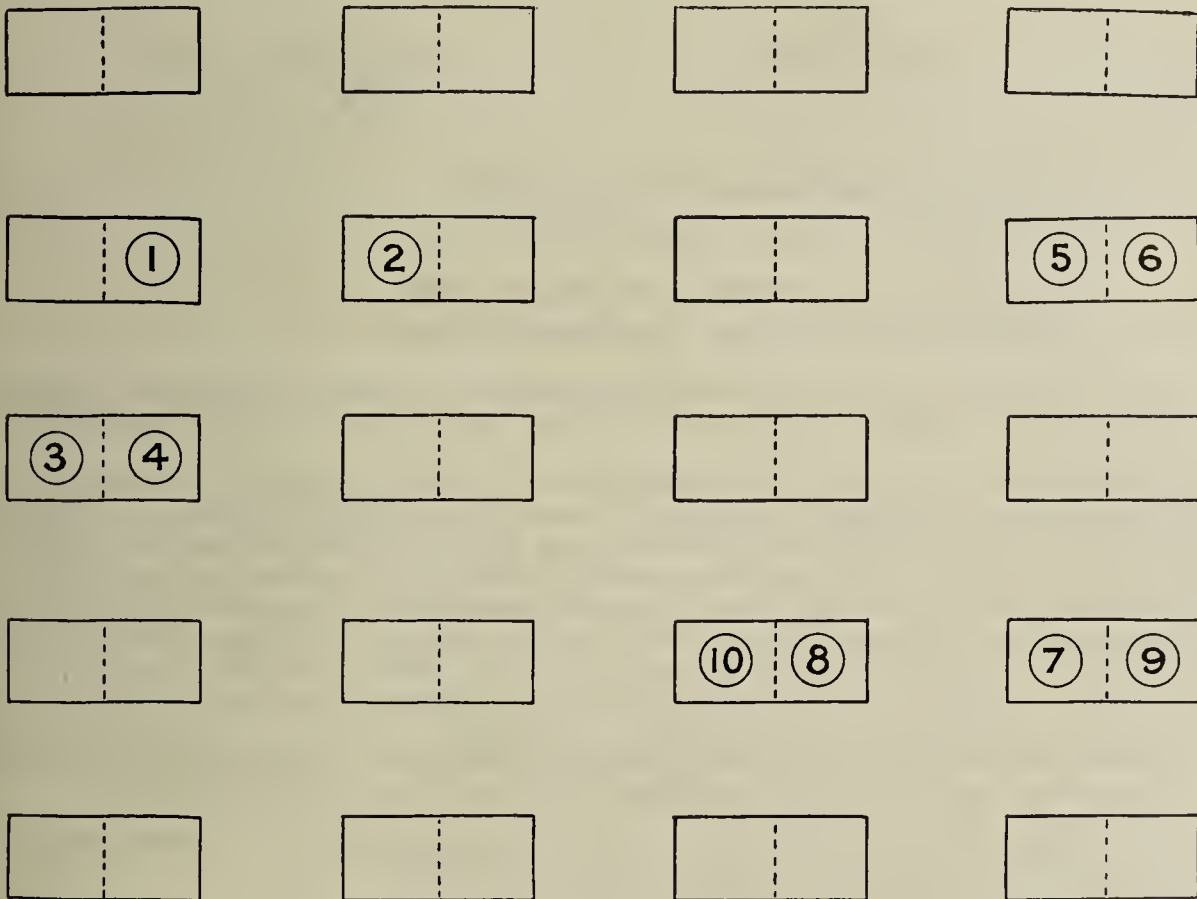
FIGURE 3



In Urmston Council School two classes were especially affected, nine cases occurring in Class "A" and four cases in Class "B." Figs. 4 and 5 showing where the children sat are of interest, as illustrating what part closeness of contact plays in the spread of the disease, and also as showing the presence of "carriers" in the affected classes.

Figure 4.

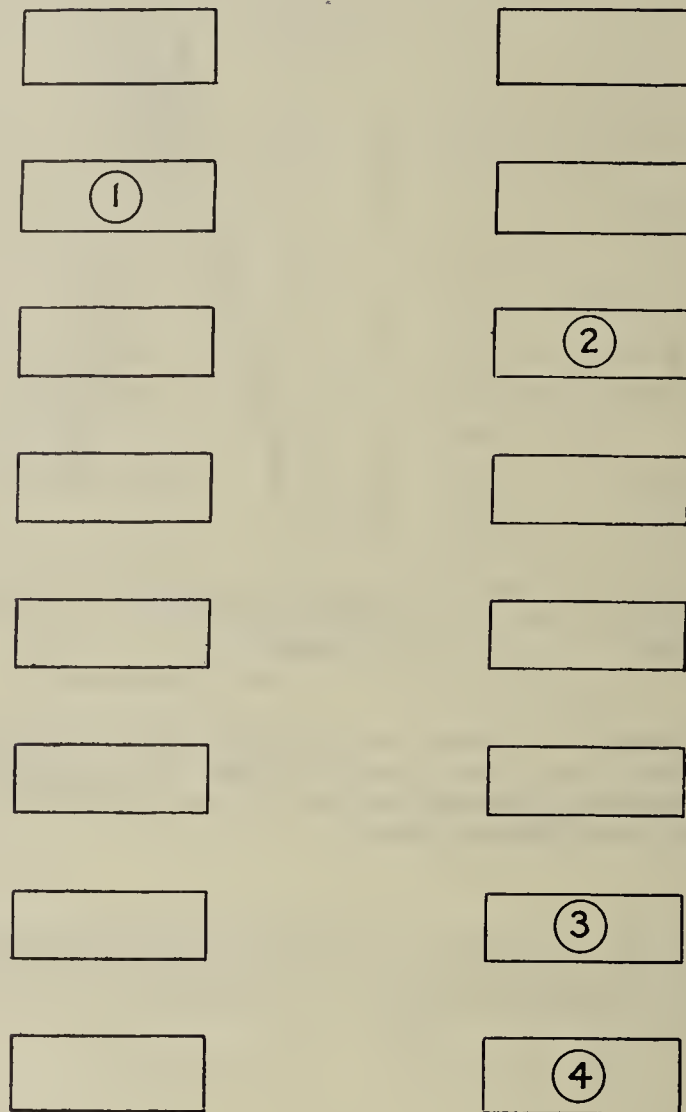
Plan showing position of desks in Form "A" classroom during outbreak of Diphtheria 1931-32.



- (1) Contracted Diphtheria, 6th October, 1931.
- (2) Contracted Diphtheria, 23rd October, 1931.
- (3) Contracted Diphtheria, 23rd September, 1931.
- (4) Contracted Diphtheria, 23rd October, 1931.
- (5) Found to be a "carrier" in school, 30th October, 1931.
- (6) Contracted Diphtheria, 21st October, 1931.
- (7) Contracted Diphtheria, 24th October, 1931.
- (8) Contracted Diphtheria, 10th February, 1932—Previously refused Immunisation.
- (9) Contracted Diphtheria, 13th February, 1932—Previously refused Immunisation.
- (10) Found to be a "carrier," April, 1932.

*Figure 5.*

Plan showing position of desks in Form "B" classroom during the outbreak of Diphtheria, 1931.



- (1) Contracted Diphtheria, 17th October, 1931.
- (2) Found to be a "carrier," 30th October, 1931.
- (3) Found to be a "carrier," 30th October, 1931.
- (4) Found to be a "carrier," 2nd November, 1931.

Case 4 in Class "B" (see Fig. 5) had had Diphtheria in a previous outbreak in August, 1930. He was found to be a nasal carrier in October, 1931, and on Schick test was negative.

Case 10 in Class "A" presented puzzling features. She was exposed to infection in October, 1931, when several class mates, including one near by, contracted Diphtheria. In February, 1932, the girl next to her contracted Diphtheria, and in April, a child who had come from another district and was staying in the same house, contracted Diphtheria within a week of arrival. This pointed to the girl as a probable carrier. A swab was taken and was positive; a virulence test was, unfortunately, inconclusive as no growth could be obtained. Further swabs were negative. To the great surprise of her family doctor, and of the writer, a Schick test proved positive. Immunisation had been previously refused but was now accepted and carried out.

The difficulty in this case was that if she was carrying the virulent bacilli (as the course of events suggested) why did the girl not contract the disease, since she was susceptible?

If the bacilli were non-virulent it is a curious coincidence that she was three times in close contact with known cases of the disease within a few months.

It was later found, however, that the child visitor to the girl's home contracted the disease from another member of its own family just before leaving home, and not from the girl carrier.

One other carrier case calls for special mention. A boy who was found to be Schick positive in March, 1932, was immunised during the following five weeks. His throat was swabbed for some slight symptom (faucial redness and irritation) early in May, and the result was positive, and on culture a virulent strain was isolated. A Schick test taken some weeks later was negative. No symptoms of Diphtheria were ever present, and the course of events indicated that complete immunity must have been present within 21 days of the third immunising injection of toxoid-antitoxin.



#### 4.—Preventive Measures.

In addition to the search for carriers, exclusion of doubtful cases and contacts (in one case an entire class for a week) was rigorously carried out, but no school was closed as this would have hindered rather than helped the control of the epidemic.

Pencils and penholders used by the affected children were destroyed and school drinking utensils thoroughly and regularly disinfected. Absentees were followed up by the school attendance officer and in all cases of sore throat, feverish illness or nasal discharge, the parents were requested to consult their own doctor without delay.

The local medical practitioners did much to help in controlling the epidemic by collaboration in reporting cases by telephone and enquiring as to possibilities of contact, and in other ways.

Although no fatal case had been reported by the end of November, 1931, some of the cases had been very ill, and it was considered advisable to commence immunisation.

#### Organisation of Immunisation Campaign.

The school in which it was decided to commence immunisation was the Urmston Council School in which there had been 28 cases during 1930 and 1931, of which 16 were in the three months September to November, 1931.

Fifteen of these were in the mixed department and only one case in the infants' department. The number of scholars on roll was :—

|                        |     |     |     |     |
|------------------------|-----|-----|-----|-----|
| Infants' Department... | ... | ... | ... | 293 |
| Mixed Department ...   | ... | ... | ... | 677 |
| Total ...              | ... | ... | ... | 970 |

A circular letter was drawn up and sent to all parents of these children stating that immunisation was being commenced, that in the older children a Schick test would be done first, and explaining the significance of this, and that if done at the clinic no charge would be made.

The circular had an attached reply form offering parents four alternative replies :—

- (1) Acceptance.
- (2) Preference for consulting own doctor.
- (3) Request for further information.
- (4) Refusal.

About 26 per cent. (255 in all) refused ; 63 preferred to consult their own doctor and many of these were immunised. Those asking for further information numbered 107 and these were invited to short lectures at the clinic held at various times during the winter ; of these parents 63 decided to have the treatment ; some did not attend for the desired information. Fifty-four per cent. accepted treatment (525 in all) in this school. Similar circulars were later sent to the Davyhulme C.E. School where 6 cases of Diphtheria had occurred in 1930–31, and here 46 per cent. accepted (74 in all) ; to Urmston Roman Catholic School where 7 cases of Diphtheria had occurred ; here 70 per cent. accepted (120 in all).

Parents of children under school age, or attending other schools, who requested treatment for their children, were included in the scheme and the full totals are set out in the following table :—

STATISTICAL SUMMARY OF IMMUNISATION CAMPAIGN, URMSTON AND DISTRICT, 1931–32.

| School.                                                            | Scholars<br>on<br>Regi-<br>ster. | Refused<br>Treat-<br>ment. | Accept-<br>ed<br>Treat-<br>ment<br>at<br>Clinic. | Schick Tests. |           |          | Immunised after<br>Schick Test. |           |           | Immunised without<br>previous Schick<br>Test. |         |         |
|--------------------------------------------------------------------|----------------------------------|----------------------------|--------------------------------------------------|---------------|-----------|----------|---------------------------------|-----------|-----------|-----------------------------------------------|---------|---------|
|                                                                    |                                  |                            |                                                  | No.<br>Tested | Result.   |          | 1st<br>dose.                    | 2nd       | 3rd       | 1st                                           | 2nd     | 3rd     |
|                                                                    |                                  |                            |                                                  |               | +         | —        |                                 |           |           |                                               |         |         |
| Urmston Council :<br>Mixed Department<br>Infants'       ,,     ... | 677<br>293                       | 186<br>69                  | 352<br>172                                       | 351<br>117    | 256<br>99 | 95<br>18 | 253<br>97                       | 248<br>97 | 241<br>91 | 1<br>55                                       | 1<br>53 | 1<br>53 |
| Total       ...     ...                                            | 970                              | 255                        | 524                                              | 468           | 355       | 113      | 350                             | 345       | 332       | 56                                            | 54      | 54      |
| Urmston R.C.       ...                                             | 173                              | 38                         | 121                                              | 85            | 53        | 32       | 53                              | 53        | 51        | 35                                            | 33      | 32      |
| Davyhulme C.E.   ...                                               | 164                              | 55                         | 76                                               | 61            | 54        | 7        | 54                              | 54        | 51        | 13                                            | 12      | 12      |
| Urmston C.E. Infants'<br>Department       ...                      | 112                              | 41                         | 27                                               | 15            | 14        | 1        | 13                              | 13        | 11        | 10                                            | 10      | 9       |
| Total       ...     ...                                            | 1,419                            | 389                        | 748                                              | 629           | 476       | 153      | 470                             | 465       | 445       | 114                                           | 109     | 107     |
| Other Schools       ...                                            | ...                              | ...                        | 26                                               | 16            | 15        | 1        | 15                              | 15        | 15        | 10                                            | 10      | 8       |
| Under School Age   ...                                             | ...                              | ...                        | 29                                               | 1             | ...       | 1        | ...                             | ...       | ...       | 28                                            | 28      | 26      |
| Grand Total   ...                                                  | ...                              | ...                        | 803                                              | 646           | 491       | 155      | 485                             | 480       | 460       | 152                                           | 147     | 141     |

By arrangement with Miss Tipper, Organising Lecturer of the County Public Health Department, a film entitled "Risk of Diphtheria banished" was shown in two local picture houses during the week February 15th to 20th, 1932.

For several months, sessions for Schick testing and immunisation were held four or five times a week at the Davyhulme Clinic, later twice a week, and towards the end of the year, once a week. Considerable and valuable assistance was given by the Local Education Committee's staff in duplication of the large number of circulars required from time to time (several thousand in all) and by head teachers and their staffs in delivery of these through the children to their parents, and returning the replies through the same channel, also in facilitating the keeping of the appointments at the Clinic; these numbered about 3,000, entailing much detailed work on the part of school and clinic staff.

#### *Schick Test.*

Up to the end of 1932, the number of Schick tests carried out in the district was 948 :—

|                                                                     |     |
|---------------------------------------------------------------------|-----|
| At Park Hospital (Nursing Staff)—October, 1930 to November, 1931... | 92  |
| At Davyhulme Clinic—Preliminary tests ... ..                        | 650 |
| Re-tests ... ..                                                     | 206 |
| Total ... ..                                                        | 948 |

Excluding the re-tests, the results of the Schick tests are tabulated below :—

|                        |     |     |     |     | Positive. | Negative. | Susceptible. |
|------------------------|-----|-----|-----|-----|-----------|-----------|--------------|
| Infants ... ..         | 134 | ... | 114 | ... | 20        | ...       | 85%          |
| Junior children ... .. | 369 | ... | 284 | ... | 85        | ...       | 77%          |
| Older children ... ..  | 143 | ... | 93  | ... | 50        | ...       | 65%          |
| Adults ... ..          | 96  | ... | 19  | ... | 77        | ...       | 20%          |
|                        | 742 |     |     |     |           |           |              |

The figures illustrate the high degree of susceptibility of younger children and the increasing immunity as age advances. A considerable number of young children (152 in all) were not given a preliminary Schick test before immunising. The procedure adopted at the clinic for Schick testing was to have ready two sterilised 1 c.c. Agla glass syringes, one filled with B.W. & Co. diluted toxin, the other with heated toxin for control. The child sat at the side of a table resting each arm in turn on the table whilst the injection of 0.2 c.c. was made intradermally into the left and right forearm respectively after cleansing the skin with ethereal soap. The Schick needles were then changed, and sterilised; it was found convenient to have about eight of these in use at once to save time in waiting for sterilisation to be finished.

The arms were re-inspected about the third day; it was found that in some children more than 48 hours was needed for the development of the reaction.

The adults included 92 on the nursing staff at Park Hospital, tested by Mr. Ashton, Pathologist to the Hospital. I am indebted to him and to Dr. Davidson, the Medical Superintendent, for their courtesy in supplying their figures and results. The other four adults were members of the clinic staff and one Head Teacher, all of whom were negative.

The majority of reactions in the children presented no difficulty whatever in reading the results, although there was much variation in the degree of the local reaction provoked on the left forearm.

In the preliminary tests only about 20 pseudo-reactions were recorded, but in the re-tests a very considerable number were met with, making the interpretation of results more difficult. (See further under re-tests).

Eleven children who had had diphtheria were Schick tested, and the result was negative in each case, in three cases pseudo-negative. The interval that had elapsed since having the diphtheria varied from 1 to 8 years in these cases.

#### *Immunisation.*

The total number of children treated with immunising injections at the clinic was 637 up to the end of 1932. This included 485 children who had been found to be Schick positive, and 152 young children who were not previously Schick tested. Not all of these had three injections, but the percentage who had was 94.5. This percentage was highly satisfactory, indicating a strong desire on the part of parents to do their part in securing effective protection.



The numbers attending are set out below :—

|                                 |     |     |     |     | 1st dose. |     | 2nd dose. |     | 3rd dose. |
|---------------------------------|-----|-----|-----|-----|-----------|-----|-----------|-----|-----------|
| Without preliminary Schick test | ... |     |     | ... | 152       | ... | 147       | ... | 141       |
| After Schick test               | ... | ... | ... | ... | 485       | ... | 480       | ... | 460       |
|                                 |     |     |     |     | <hr/>     |     | <hr/>     |     | <hr/>     |
| Totals                          | ... | ... | ... | ... | 637       | ... | 627       | ... | 601       |
|                                 |     |     |     |     | <hr/>     |     | <hr/>     |     | <hr/>     |

This represents a total of 1,865 doses, the material used being B.W. & Co. T.A.M. Toxoid-antitoxin with a dosage of 1 c.c. at weekly or fortnightly intervals.

Administratively, weekly intervals are much more satisfactory, but it is said that the immunising power is greater with the longer intervals between doses, and latterly this was arranged.

Every care was taken as regards cleansing of the skin and aseptic precautions generally ; an electric steriliser made sterilising of bowls, forceps and needles an easy matter. All syringes were kept permanently in 5 per cent. carbolic acid. The upper arm was cleansed with ethereal soap and the child held by the nurse while the injection was rapidly made into the muscles of the upper arm. Few children complained of any pain—the skin in that region is less sensitive than in the forearm, and all the children preferred the injections to the intra-dermal Schick test.

Only one child was in the surgery at a time.

No local reactions occurred except in two children, one of whom was found to be very serum sensitive, and another had had anti-tetanic serum a week or two before, following an injury ; in both cases the arm was normal in a few days. General reaction of a mild nature occurred in a small number of children, varying from temporary prostration the next day to a slight malaise and sickness, but no consequences of any moment occurred. Only two children had a serum rash, and that of a slight nature. The younger children, on the whole, were much less affected than the older ones.

## RESULTS.

### 1.—Incidence of Diphtheria in Locality.

This has fallen considerably ; taking into account the seasonal autumn rise referred to previously, the following figures are of interest :—

| Notifications of diphtheria in :— |     |     |     | Urmston U.D. |     | Barton-on-Irwell R.D. |     | Total. |
|-----------------------------------|-----|-----|-----|--------------|-----|-----------------------|-----|--------|
| September 1—December 31/30        | ... | ... | ... | 3            | ... | 11                    | ... | 14     |
| "                  "/31           | ... | ... | ... | 10           | ... | 22                    | ... | 32     |
| "                  "/32           | ... | ... | ... | 2            | ... | 3                     | ... | 5      |
| (See also Fig. 3).                |     |     |     |              |     |                       |     |        |

The Elementary School population of the Urmston, Davyhulme and Flixton area was 2,426 in March, 1932.

The result of the preliminary Schick tests indicate that one quarter of these children may be regarded as already naturally immune from diphtheria.

To these may now be added 601 children who have been artificially immunised with the full course of the three injections, but allowance must be made for the fact that of the 152 immunised without preliminary Schick test, probably 20 per cent. were already immune. Hence, subtracting 20 per cent. of 152 from 601 leaves 571 children artificially immunised (as will be seen later, not all of these can be regarded as *entirely* immune, but 85 per cent. can be so regarded, and the remainder probably have some increased measure of protection). Hence, the general immunity in the Elementary School population of the district has been increased from 25 per cent. to 45 per cent.

### 2.—Incidence in Certain Schools.

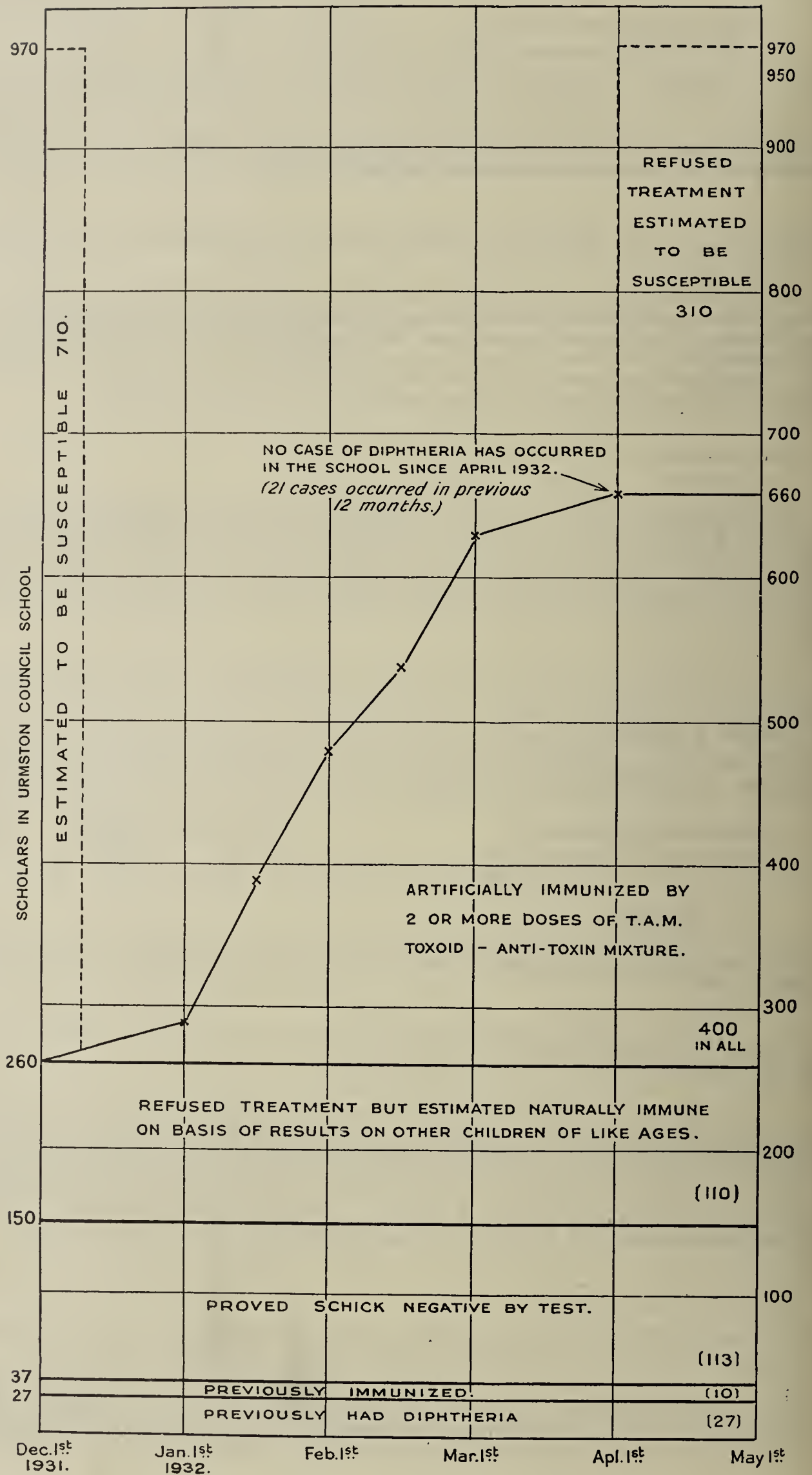
No case of diphtheria has occurred in Urmston Council School since the 29th March, 1932, by which time about 400 children at that school had been treated. (See Fig. 6).

Two carriers of diphtheria bacilli were found in the school as late as the beginning of May (one being proved virulent on culture from the swab) but no cases of the disease occurred from the contact, probably owing to the rise in the "herd" immunity as shown in Fig. 6.



*Rise of "Herd Immunity" in Urmston Council School.*

FIGURE 6



The other schools and departments where treatment was extensively organised have had no further cases.

That the immunity enjoyed by these schools is not just due to a general fall of diphtheria incidence in the locality, but to the rise of immunity in the schools themselves is shown by the following facts :—

The numbers on the registers of the first three schools treated were as follows :—(in March, 1932)

|                 |     |     |     |     |       |
|-----------------|-----|-----|-----|-----|-------|
| Urmston Council | ... | ... | ... | ... | 924   |
| Davyhulme C.E.  | ... | ... | ... | ... | 169   |
| Urmston R.C.    | ... | ... | ... | ... | 173   |
| Total           | ... | ... | ... | ... | 1,266 |

or roughly half that of the Elementary School population.

Since the 31st March, 1932, there have been 12 cases of diphtheria (10 among children) in the district, but none of these attended these three schools.

Three were under school age; three attended Urmston C.E. School; two Flixton Council School and two attended schools in Stretford.

### 3.—*Individual Immunity.*

Re-tests were made by re-Schick testing 206 children who had been given immunising treatment early in 1931.

#### *Davyhulme C.E. School.*

Sixty-two children who were immunised in February and March (one in April) were re-tested in July—of these 58 gave a Schick negative result (47 of these had previously been Schick positive, the other 11 had been immunised without a preliminary Schick test). Four showed a positive result (three very faint and one quite definite) and further injections were advised. This shows 6·5 per cent. of partial failures, comparing well with the figure of 8·6 given by Nash and Bousfield (8).

#### *Urmston Council School.*

Retests were made in 138 children from this school and six other children in the autumn of 1932. Of these 144 children, 75 were negative and 39 pseudo-negative; 30 were positive, 15 slightly, 14 definitely and one pseudo-positive. This result was not so satisfactory as in the other retest, and it is difficult to account for the difference. The figure of 20 per cent. partial failures agrees with some other observers' findings (e.g. M.O.H. Ogmore) (9).

Owing to the large number of pseudo-reactions the results were difficult to read in some cases.

It is said that results vary in different parts of the country with different observers, but in this case differing results were obtained by the same observers and technique.

The result of the two retests together was that 34 out of 206 were not rendered fully immune by three doses of 1 c.c. T.A.M. Toxoid-antitoxin, or 16·5 per cent.

One or two further doses of this were given according to the strength of the re-Schick reaction at intervals of a fortnight; no children showed any noticeable reaction as a result of these further doses, which were not given to any case exhibiting a pseudo-reaction.

### EFFECT UPON THE "CARRIER RATE."

The suggestion has been made that immunisation may raise the carrier rate.

On theoretical grounds it is conceivable that children artificially immunised and coming into contact with diphtheria may become "carriers" who would otherwise have been cases of the disease; this would raise the carrier rate.

No evidence that this is occurring in Urmston and district has been forthcoming.

Wholesale swabbing has not been undertaken for reasons of expense, but the results of swabs taken over the past 18 months show a diminishing incidence of carriers; since immunisation was commenced the proportion found has fallen from 10·6 per cent of swabs examined to 6·4 per cent. The number examined was not large, but the indications, such as they are, are against an increasing



carrier rate. If the proportion of carriers had increased, say, in Urmston Council School, it is reasonable to suppose that fresh cases of Diphtheria would have occurred in the last 11 months among—

- (a) children whose parents refused treatment (255 in all),
- or (b) children entering the school since the summer of 1932 and as yet untreated (97 in all).

No case has occurred in that period of 11 months. Stallybrass has pointed out that even where "carriers" have been troublesome in an Institution, systematic Schick testing and immunisation will rid the community of these "carriers" in time (10).

What does seem to have been occurring in Urmston and district is that the disease has transferred its attention to children under school age and to children attending other schools where immunisation has not been as yet undertaken, thus giving indications as to where preventive measures should next be undertaken.

#### CONCLUSIONS.

1.—Diphtheria immunisation offers a safe and effective means of controlling and preventing Diphtheria outbreaks in Elementary Schools. It is particularly useful in cases where "carriers" appear to be causing recurrent outbreaks.

2.—Consent of parents in a typical suburban area was obtained in 55 per cent. of cases in three schools containing over 1,300 children, without propaganda other than a simply worded circular offering treatment. (This compares well with a figure of 41 per cent. quoted from Edinburgh in a school campaign) (10).

3.—It is necessary that the immunisation should be kept up, as otherwise, by the introduction of fresh susceptibles from time to time, the herd immunity of the school, artificially raised by immunisation, will be gradually lowered to a point where the disease can again cause an epidemic.

4.—While the effect in diminishing the Diphtheria incidence in the community is entirely satisfactory, care should be exercised in promising full immunity in the individual case where three injections of 1 c.c. of T.A.M. Toxoid antitoxin are given. Without a retest it is not certain in any individual case that immunity will be fully established. The proportion of successes with three inoculations was about 84 per cent. among 200 children retested, the percentage varying in different schools for reasons not known. In view of the beneficial effect on Diphtheria incidence in the Institutions concerned and in the district, the failure fully to establish immunity in a proportion of those treated should not deter us from using this mode of preventive treatment while awaiting a more potent or more speedy method.

#### REFERENCES.

- 1.—Forbes : "Diphtheria, its Ætiology, Distribution, Transmission and Prevention." Page 386.
- 2.—Annual Reports M.O.H., County Palatine of Lancaster, 1930 and 1931.
- 3.—Forbes : Ibid. Page 407
- 4.—Annual Report M.O.H., County Palatine of Lancaster, 1931. Page 143.
- 5.—Forbes : Ibid. Page 404.
- 6.—Dr. Caryl Thomas : "The Incidence of Infection in New Estates." THE MEDICAL OFFICER, December 28th, 1932. Annual Report M.O.H., Dagenham U.D.C., 1929. Page 30. Forbes : Ibid. Page 401.
- 7.—Annual Reports M.O.H., County Palatine of Lancaster, 1928–1931.
- 8.—Nash and Bousfield : "An Immunisation Campaign and its Results." THE MEDICAL OFFICER, January 16th, 1932.
- 9.—W. A. Murphy : "Diphtheria Immunisation in a Colliery District." PUBLIC HEALTH, August, 1932. Page 342.
- 10.—C. O. Stallybrass : "The Methods and Results of Premunisation." PUBLIC HEALTH, January, 1931. Page 119.

#### *Second Report—*

The continued prevalence of diphtheria in Urmston, Davyhulme and Flixton, now united as the Urmston Urban District, was the subject of an investigation published in the Report for 1932 (1), in which was described an immunisation campaign commencing December, 1931.

This has been continued through 1932 into the first seven months of 1933. A further complete school (Urmston C.E.) was included, and the work already done in the Urmston Council, Urmston R.C. and Davyhulme C.E. Schools was consolidated by offering immunisation to the new entrants in these schools.



The number treated in 1933 was 228, and in addition, treatment was offered to 191 others whose parents declined. This gives a percentage acceptance of 56·8, a fairly good figure when it is remembered that diphtheria was not prevalent in these schools during 1933.

The detailed figures for 1933 and the complete figures for the whole campaign are given in Table 1.

TABLE 1.  
STATISTICAL SUMMARY OF IMMUNISATION CAMPAIGN—URMSTON AND DISTRICT.

|                  | No. who accep-<br>ted<br>Treat-<br>ment. | No. who<br>refused<br>Treat-<br>ment. | No.<br>treated<br>at<br>Clinic. | Schick Tests.  |     |     | Immunised after<br>Schick Test. |              |              | Immunised without<br>previous Schick Test |              |              | Total No.<br>Immunised<br>by |             |
|------------------|------------------------------------------|---------------------------------------|---------------------------------|----------------|-----|-----|---------------------------------|--------------|--------------|-------------------------------------------|--------------|--------------|------------------------------|-------------|
|                  |                                          |                                       |                                 | No.<br>Tested. | +   | —   | 1st<br>dose.                    | 2nd<br>dose. | 3rd<br>dose. | 1st<br>dose.                              | 2nd<br>dose. | 3rd<br>dose. | 2 or<br>more                 | 3<br>doses. |
| 1931—<br>1932... | 803                                      | 389                                   | 792                             | 646            | 491 | 155 | 485                             | 480          | 460          | 152                                       | 147          | 141          | 627                          | 601         |
| 1933 ...         | 228                                      | 191                                   | 205                             | 118            | 78  | 40  | 77                              | 69           | 61           | 88                                        | 83           | 74           | 152                          | 135         |
| Total ...        | 1031                                     | 580                                   | 997                             | 764            | 569 | 195 | 562                             | 549          | 521          | 240                                       | 230          | 215          | 779                          | 736         |

PREVALENCE OF DIPHTHERIA IN 1933.

This may be conveniently considered under three headings :—

(a) *In the district as a whole.*

There has been no change in the prevalence since the preceeding year, the total number of cases being 21—the same as in 1932.

The age distribution has altered, fewer children under school age being attacked and more adults.

The following table shows the distribution in the groups (a) under school age, (b) school age, (c) over school age, during the past four years :—

|                  |     | 1930. |     | 1931. |     | 1932. |     | 1933. |
|------------------|-----|-------|-----|-------|-----|-------|-----|-------|
| Under school age | ... | 3     | ... | 2     | ... | 6     | ... | 2     |
| School age       | ... | 18    | ... | 37    | ... | 12    | ... | 13    |
| Over school age  | ... | 10    | ... | 10    | ... | 3     | ... | 6     |
|                  |     | —     |     | —     |     | —     |     | —     |
| Totals           | ... | 31    | ... | 49    | ... | 21    | ... | 21    |
|                  |     | —     |     | —     |     | —     |     | —     |

It is probable that no marked results on the general prevalence of diphtheria in the district would be noticed unless a continued campaign of immunisation of children under school age were conducted over a period of several years (2). Chesney (3) states that active immunisation as a means of preventing diphtheria, to be effective in its application to the community, as distinct from individual efficiency, must be carried out continuously and in sufficient numbers in the pre-school group.

Godfrey (4) in a paper at Montreal, 1932, on the results of preventive inoculation in populous centres in New York State says that although 50–70 per cent. of school children had been protected, it was not until an additional 30 per cent. or more of those under five years of age had been immunised, that any fall in the diphtheria rate of the community was produced.

(b) *In the Schools.*

The schools in which diphtheria was most prevalent in the last few years are shown below. In all of them diphtheria immunisation was carried out.

| School.         |     | No. of cases of diphtheria. |     |        |     |       |     |       |
|-----------------|-----|-----------------------------|-----|--------|-----|-------|-----|-------|
|                 |     | 1930.                       |     | 1931.  |     | 1932. |     | 1933. |
| Urmston Council | ... | 11                          | ... | 18 (a) | ... | 3     | ... | 4     |
| Urmston R.C.    | ... | 1                           | ... | 4      | ... | 1 (b) | ... | —     |
| Davyhulme C.E.  | ... | —                           | ... | 1      | ... | 3 (c) | ... | 1     |
| Urmston C.E.    | ... | —                           | ... | —      | ... | 2 (d) | ... | 3     |

- (a) *Immunisation commenced end of December, 1931.*
- (b) *Immunisation commenced in middle of 1932.*
- (c) *Immunisation commenced in middle of 1932.*
- (d) *Immunisation commenced end of 1932.*

The other cases of diphtheria in school children in 1933, were scattered in the remaining schools, and also occurred among children resident in the area and attending schools outside the Urban District.

(c) *Individual Protection.*

Up to the end of 1932 no case of diphtheria had occurred in a child previously immunised at the Urmston Clinic, but three cases have occurred since.

Since the immunisation began there have been 27 cases of diphtheria among school children in the Urban District in a little over two years; of these, 24 were among non-immunised children and three among the immunised. The attack rate among the immunised school children has been 0.2 per cent. per annum, and among the non-immunised school children 0.6 per cent., or three times as great among the unprotected as among the protected. The following are the particulars of the three cases that in spite of immunisation subsequently developed diphtheria:—

Case 1.

Girl aged 7 years.

Schick positive, 7/1/32.

Immunised with T.A.M. toxoid antitoxin on January 8th, 15th and 22nd.

Schick test again done on 14/10/32—result negative.

Developed diphtheria six months later—8/5/33. This was a very mild attack with no toxic symptoms. Positive swabs were obtained but no virulence test was done in hospital. Her Schick reaction was negative on admission, but she had had some antitoxin prior to admission.

Case 2.

Boy aged 7 years.

Schick positive 6/1/32.

Immunised with T.A.M. toxoid antitoxin on January 8th, 15th and 22nd.

Schick test again done on 19/9/32, and still positive.

Immunised again once, but did not attend for a further injection.

Developed diphtheria nine months later—very severely—11/8/33, and was given antitoxin at home, and 100,000 units (some of it intravenously), in hospital, but died on the 16th day of the disease.

This may have been one of those cases that it is not possible to protect by immunisation owing to some inability to retain the protective material in the blood.

This boy had three brothers and a sister at school, all of whom had been immunised about the same time in 1932. One had subsequently been retested and found to be negative. None of these children developed diphtheria, although exposed to risk when the brother contracted it. The mother, however, contracted the infection from her son, but recovered under treatment in hospital—she, of course, had not been immunised.

Case 3.

Boy aged 11 years.

Schick positive, 26/4/32.

Immunised with T.A.M. toxoid-antitoxin on 24/4/32—12/5/32 and 25/5/32.

Contracted diphtheria seven months later on 12/1/34. A mild case with very little deposit on the tonsils.

The occurrence of cases (such as Case 1) of diphtheria in a child found to be Schick negative after immunisation is uncommon, but not unknown.

O'Brien, Okell and Parish (5), after a close enquiry met with 18 definite cases among over 20,000 Schick negatives; in every case but one the disease was mild and toxæmia absent. They emphasise the fact that the negative Schick must be indubitably negative and the diphtheria both clinically and bacteriologically in agreement.

The Case 1 recorded above falls into this category.

Davies (6) reports five similar cases of diphtheria occurring after a Schick negative reaction, the time interval between reaction and disease varying from 185 to 204 days.

In Case 1 the interval was 206 days.

Murphy (7) reported three cases in his district of diphtheria occurring some months after a Schick negative reaction had been obtained, following immunisation. In each case the attack was of a mild type.



Phillips (8) reports two cases occurring nine months after immunisation (and three months after negative re-Schick reactions were obtained). In these cases the immunising material and interval between doses was exactly as practised in Urmston, i.e., weekly intervals and 1 c.c. T.A.M. toxoid-antitoxin on each occasion.

In conclusion it may be stated that the difficulties encountered in the Urmston outbreak appear similar to those met with by investigators elsewhere and are due to factors largely outside present control.

Forbes (9) states that it is probable that there are certain individuals whose amount of natural antitoxin is on the border line, subject to slight fluctuations, and not constantly stable, according to the extent and frequency of exposure to mild doses of infection, on the stimulus of which the normal individual is dependent for maintaining natural immunity.

As has been pointed out by O'Brien, Okell and Parish (5), active immunity is a function subject to fluctuation. It is conceivable that sudden exposure of such an individual with unbalanced amount of antitoxin, to a massive dose of infection, may result in an attack of diphtheria developing at a time when the natural antitoxin has been temporarily reduced (9).

The Schick negative stage has thus come to be regarded of late, not as a criterion of absolute immunity, but as indicating that an individual has acquired a certain training in antitoxin production (10).

#### REFERENCES.

- 1.—Annual Report of County M.O. and School M.O., Lancashire County Council, 1932. p. 105.
- 2.—“Diphtheria Immunisation in Infancy.” J. Graham Forbes. 1933.
- 3.—Poole Health Report, 1932. Part 5. pp. 21–22.
- 4.—American Journal of Public Health. March, 1932. E. S. Godfrey, p. 237.
- 5.—“Lancet,” 1929. p. 149. O'Brien, R. A. Okell, C. C. Parish, H. T.
- 6.—Diphtheria Immunisation. J. Greenwood Wilson. p. 96.
- 7.—“Diphtheria Immunisation in a Colliery District.” W. A. Murphy. PUBLIC HEALTH, 1932. p. 341.
- 8.—“Persistent Diphtheria in an Infants' School.” H. J. Phillips. THE MEDICAL OFFICER. 27th January, 1934. p. 35.
- 9.—Diphtheria : Its Distribution and Prevention. J. Graham Forbes, p. 439.
- 10.—Ibid. p. 810.

**Enteric Fever** (including Paratyphoid).—The incidence of enteric fever in the Administrative County in 1933 is the lowest recorded since County statistics were available. There were only 55 cases notified, against 98 in the preceding year. The deaths numbered 11, giving a death-rate of 0.006 per 1,000 of the population. Seventy-seven County districts were entirely free from this disease during the year under report. To illustrate the marked reduction in the prevalence of the disease, it may be stated that in the year 1898 the cases notified in the County area numbered 2,661 and there were 478 deaths.

In January, 1933, the Medical Research Council issued a report on “Chronic enteric carriers and their treatment.” The report contains valuable information on the discovery and identification of enteric carriers, and the treatment of such carriers.

**Measles.**—The fatalities recorded in 1933 as due to measles numbered only 59, or 77 less than in the previous year. This disease is notifiable in 6 districts where 378 cases were reported. School closure on account of measles was resorted to in 13 districts.

**Whooping Cough.**—Deaths registered in 1933 from whooping cough totalled 89, as compared with 113 in the year 1932. The disease is notifiable in 4 districts; in these areas 360 cases were notified. Schools were closed in 5 districts.

**Chicken-pox** was reported as notifiable in 11 districts and 596 cases were notified. School closure took place in 4 districts.

**Diarrhoea.**—The following deaths were registered as due to diarrhoea:—at all ages 185; under 2 years of age 108, the latter corresponding to a rate of 4.63 per 1,000 registered live births.

**School Closures by the County School Medical Officer and by Sanitary Authorities.**—On page 71 is given a list of the school closures in the year 1933 in the County Council Elementary Education area on account of the prevalence of infectious diseases. In this area, 113 schools were closed by the County School Medical Officer under Article 23 (b) of the Board of Education Code and 217 by Sanitary Authorities under Article 22.

The Medical Officers of Health of 11 districts, autonomous for elementary education, report school closures in 1933 owing to infectious outbreaks.



**Acute Poliomyelitis, Acute Polio-encephalitis, Encephalitis Lethargica, Cerebro-Spinal Fever.**—The reported incidence of these diseases and the mortality is shown below. The notifications of encephalitis lethargica as shown in the local reports, do not indicate the total number of persons attacked, as the deaths registered as due to this disease exceed the notifications.

|                                                    | Acute<br>polio-<br>myelitis. | Acute<br>polio-<br>encephal-<br>itis. | Encephal-<br>itis<br>lethargica. | Cerebro-spinal<br>fever. |
|----------------------------------------------------|------------------------------|---------------------------------------|----------------------------------|--------------------------|
| Cases notified—                                    |                              |                                       |                                  |                          |
| 1932... ..                                         | 23                           | 6                                     | 36                               | 54                       |
| 1933... ..                                         | 72                           | 16                                    | 20                               | 39                       |
| Attack rate in 1933 per<br>1,000 of population ... | 0.03                         | 0.008                                 | 0.01                             | 0.02                     |
| Deaths registered—                                 |                              |                                       |                                  |                          |
| 1932... ..                                         | 6                            | 2                                     | 59                               | 36                       |
| 1933... ..                                         | 16                           | 7                                     | 56                               | 27                       |
| Distribution (1933)—                               | C.                           | D.                                    | C.                               | D.                       |
| Urban districts ...                                | 61                           | 15                                    | 14                               | 7                        |
| Rural districts ...                                | 11                           | 1                                     | 2                                | —                        |
| Seasonal incidence<br>(1933)—                      |                              |                                       |                                  |                          |
| Cases—1st quarter                                  | 6                            | 3                                     | 5                                | 12                       |
| 2nd „ ...                                          | 10                           | 6                                     | 2                                | 13                       |
| 3rd „ ...                                          | 45                           | 4                                     | 7                                | 8                        |
| 4th „ ...                                          | 11                           | 3                                     | 6                                | 6                        |

Circular regarding Acute Poliomyelitis.—On the 24th August, 1933, the County Medical Officer of Health forwarded a circular letter to every Local Medical Officer of Health in the Administrative County pointing out that as a result of the climatic conditions which had prevailed during the past few months there was a danger of an increase in such conditions as poliomyelitis, polio-encephalitis and possibly cerebro-spinal meningitis. The Local Medical Officer of Health was asked to consider the question of drawing the attention of Medical Practitioners in his area to the importance of early treatment of such cases, and with regard to Poliomyelitis to the facilities which are available for consultative advice and treatment at the various hospitals and clinics.

A copy of the circular letter was also forwarded to each of the Assistant County Medical Officers of Health.

As a result of the letter, enquiries have been received from several districts for information regarding arrangements at present in operation for the hospital treatment of, or consultative advice with regard to, cases diagnosed as poliomyelitis. In reply to these enquiries it was pointed out that treatment would be available for all children under the County Council's Cripples Scheme in the Hospitals allocated for this purpose, and that any case of this disease would be looked upon as urgent and have priority in admission. Also that treatment could be obtained at the various Orthopaedic Clinics, where the advice of an Orthopaedic Surgeon could be sought.

On the receipt of a request for assistance in the diagnosis of a suspected case arrangements are made by the County Public Health Department for one of the Assistant County Medical Officers to see the patient. Several cases have been notified by telephone and full particulars obtained as to name and address, source of infection, &c. A record has been kept of all cases notified in this manner.

Serum is obtainable in several General Hospitals for special cases.

Post-vaccinal encephalitis.—At the request of the Ministry of Health one of the Assistant County Medical Officers of Health made an investigation into a doubtful case of post-vaccinal encephalitis. The diagnosis did not appear to be proven. In a second case, investigated by the Local Medical Officer of Health, the diagnosis eventually made was acute poliomyelitis.

#### OUTBREAK OF ACUTE ANTERIOR POLIOMYELITIS IN IRLAM, AUGUST AND SEPTEMBER, 1933.

Dr. A. V. Stocks, one of the Assistant County Medical Officers of Health has prepared the following account of his investigation.

Nine cases of Acute Anterior Poliomyelitis were notified to the Irlam Urban District Council during the month of September, 1933. No previous cases had occurred in that year, and no cases in 1932, 1931 or 1930. In the decade 1920–29 there were only two cases, with one death (1).

## AGE AND SEX INCIDENCE.

Eight cases were children; two were under one year old, one case was in its second year, one in the third year, two in the fourth year, one in the fifth year and another in the sixth. The remaining case was an adult, aged 29 years.

It is stated that the largest proportion of cases occur between the ages of one year and five years (2); in this epidemic five out of nine cases were in that group. Seven out of nine cases were males.

The evidence available in other epidemics points to a real sex difference in susceptibility; the case rate is higher among males than females and this is true at practically all ages (3).

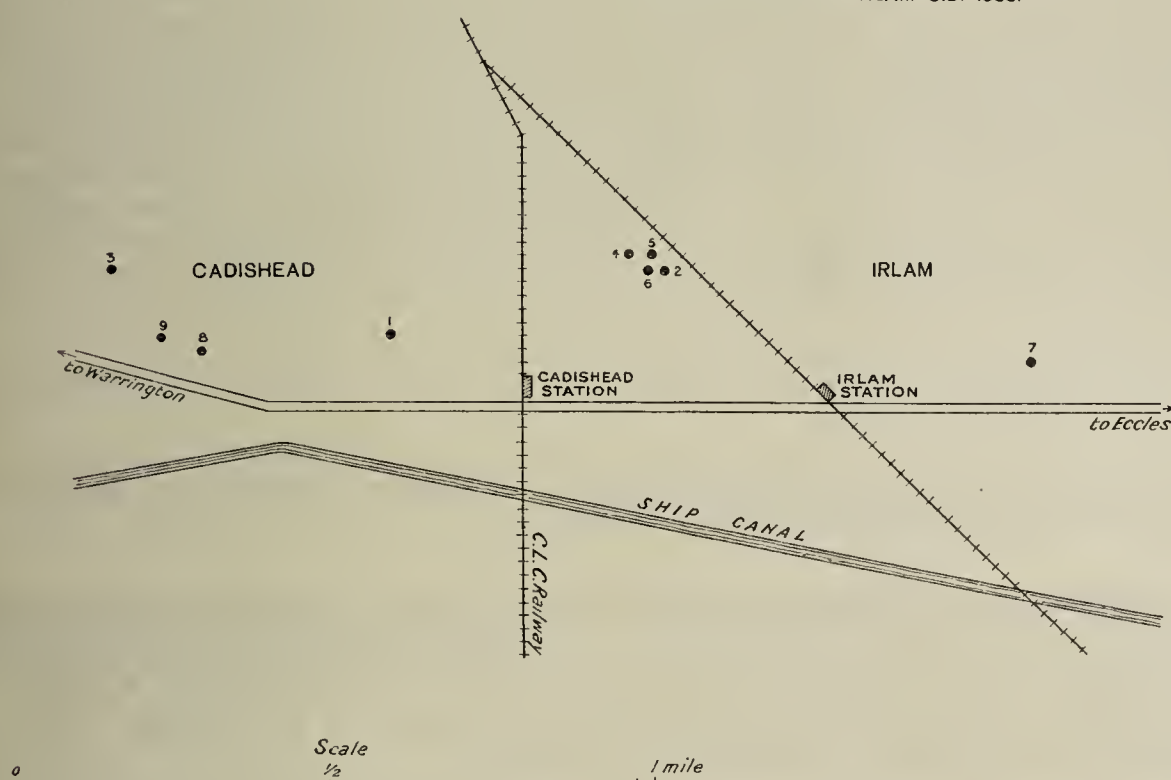
## MORTALITY.

There was only one fatal case, the adult aged 29 years, giving a case fatality of 11 per cent. In different epidemics the case fatality has varied from 10 per cent. to 25 per cent. (2) and in general is greater among infants under one year old and in the older age groups (3).

## INCUBATION PERIOD.

In this outbreak there were two cases in one house separated by an interval of five days. The intervals between the other cases varied from two to ten days. Lapage puts the commonest incubation period as from five to eight days (4); this has been found also to be true experimentally in monkeys (5).

DIAGRAM TO ILLUSTRATE THE GEOGRAPHICAL DISTRIBUTION  
AND ORDER OF APPEARANCE OF CASES OF  
POLIOMYELITIS IN IRLAM U.D. 1933.



## ETIOLOGY.

That the causative agent of epidemic poliomyelitis is a living virus was shown by experiments on monkeys by Landsteiner and Levaditi in 1909, and by Flexner and Lewis in the same year; an emulsion of the spinal cord from fatal human cases of the disease produced characteristic paralysis when inoculated into Rhesus monkeys (6). The virus has never definitely been found in human spinal fluid, but occasional positive results have been obtained with inoculation of cerebro-spinal fluid of monkeys. The virus has not been detected in human blood, but occasionally in the blood of monkeys (7). It has been demonstrated in the naso-pharyngeal washings of cases of the disease at an early stage in human beings and sometimes some months after the attack (active carriers) and in healthy contacts (passive carriers) (8). The virus has been detected in the intestinal secretions and mucosa in fatal human cases, also in the tracheal secretions and mucous membrane, but not in human faeces; it has been found in a few experimental cases in the faeces of monkeys (9).

## MODE OF SPREAD.

The virus is said to be present in dust of rooms inhabited by infected persons, and to resist drying and sunlight, so that even the dust of the roads may be infective. Epidemics seem to spread along the highroads and occur in the early Autumn. (Lapage) (4).



The weather in August and September, 1933, in Irlam, was hot, dry and dusty, and many of the cases lived in close proximity to one another. The sketch map shows the relative position of the affected households. The most widely accepted theory as to transmission is that the etiological agent is a filterable, ultraviolet virus; that this virus is carried and disseminated only by man; that in the infective stages the virus is present in the naso-pharyngeal secretions, that it is conveyed from the sick to the healthy by these secretions, primarily through infective droplets sprayed about in talking, breathing and coughing (10).

Spread of the disease by droplet infection does not appear a very satisfactory explanation in the Irlam outbreak. It is true that in a number of the cases naso-pharyngeal discharge was observed as an early symptom, but there was an absence of contact or connection between most of the cases that does not fit in with the "droplet" theory. The weather was hot, dry and calm, the schools were closed and most of the cases were very young children who mixed little with people outside the family. Many of the houses were situated on the edge of moss land—the fringe of which has been turned into well-manured allotments. Flies were exceedingly common in these houses in August and September, being particularly commented upon by the medical attendant of most of the cases.

It is a suggestive fact that poliomyelitis is most prevalent, in this country at any rate, in hot, dry (fly) weather, its maximum prevalence coinciding with that of infantile diarrhoea.

The tendency of the disease to a rural distribution, the small percentage of cases that can be traced to contact with previous cases, and the low incidence among those exposed to infection in institutions and families, are features common to insect borne diseases (11).

The evidence for and against insect transmission is given in the International Committee's Survey of Poliomyelitis (11). They lay stress on the absence of the virus in human blood, upon the negative results obtained by injecting virus intravenously in monkeys, and on the failure of attempts to demonstrate the virus in extracts of insects which had fed upon humans or monkeys suffering from poliomyelitis. This line of reasoning appears unconvincing to the writer. Is it necessary to postulate an inoculation of the virus into the blood by the insect piercing the human skin? It is also said that *Musca Domestica*, the house-fly, and *Calliphora vomitoria*, the blue-bottle, showed no trace of the virus when young larvae had been fed on infected monkey brain tissue and allowed to hatch out. But is it not conceivable, judging by the known habits of these flies, that they may be only carriers of the virus for brief periods, carrying it on their hairy legs from the secretions of infected persons on to food already prepared for healthy persons in another household?

This introduces the suggestion of infection via the human intestine as a possibility, and this is discussed more fully below.

J. Fine (12) mentions milk and other foods as transmitters of the disease, and this is also discussed in the International Committee's Survey.

Stallybrass, in reviewing reports of milk-borne epidemics of poliomyelitis occurring in Sweden, Spring Valley, New York and Broadstairs says: "Although the conveyance of this disease through contaminated milk cannot be regarded as generally accepted, I regard the evidence as very strong." In Broadstairs, with a population of 15,000, only two cases occurred from 1921–September 1926, both in 1925. In 1926 there were 62 cases between the 10th and 29th October. All the cases had milk from one dealer, who obtained it from 15 farms.

On the other hand, there was abundant evidence of contact in these cases, chiefly in private boarding schools; no source of contagion was found at the farms or distributors, and many people drank the milk and remained well (13). In the Irlam outbreak the milk supply was investigated and found to be from several distinct sources.

#### SECONDARY CASES.

Two cases occurred in one house; the first a boy of three years on the 8th September, and on the 13th September, the sister, aged 11 months, developed the disease. Lapage states that such instances, while not rare, are much rarer than one would be led to anticipate (4). In an investigation into cases in Lancashire during the decade 1920–29 only one such case was reported (14).

In New York, in 1931, out of 3,999 families affected, only 98 had a second case, three of these having a third case (15).

#### IMMUNOLOGY.

While the sudden "explosive" character of the outbreak is interesting and explicable on the grounds mentioned above, the equally sudden cessation of this and similar outbreaks is of great interest. What is the limiting factor? The enforcement of isolation of cases is insufficient to explain the arrest of the outbreak.

The explanation is probably to be sought along the lines of natural and acquired immunity.

It is stated that less than 5 per cent. of children exposed to infection acquire the disease, and that this is due to most of the rest being protected by an immunity (12).

Aycock places this figure at 1 per cent. when the disease is not specially active (14).

Individual immunity is high (natural immunity) in the first six months of life; thereafter it falls quickly, but rises in the later years of childhood. It has been suggested that the virus is widely spread and that the comparative freedom of adults from attack is due to an acquired immunity, as substances capable of neutralising the virus have been demonstrated in the blood of persons who have been exposed to infection but who have had few or no manifestations of the disease (2).

It has been stated that where the disease is endemic, upwards of 100 people acquire an immunity to the virus of acute anterior poliomyelitis, by mild, unrecognised infections, to every person who develops paralytic symptoms, and by the time adult life is reached, the majority of people living in areas where the disease has been endemic have become immune by such processes of latent epidemisation. "It may be that some of the obscure febrile attacks and catarrhs of childhood are reactions of the child to the viruses of this and other diseases, and are of the greatest importance in establishing lasting future immunity to them" (14).

Assuming that an extensive immunising wave accompanies the recognised cases, one would expect the blood of those who had these febrile attacks or catarrhs during a small epidemic of actual cases of poliomyelitis in their locality to be more potent in neutralising virus than the blood of persons in an area where there had been no cases of the disease. Kramer and Aycock tested this point following the occurrence of five cases in Bedford, U.S.A., a town of 1,700 inhabitants. They selected 20 Bedford children who had had minor illnesses during the outbreak (perhaps abortive poliomyelitis) and five months after the outbreak they carried out neutralisation tests on them. They also selected 28 Bedford children who had remained well, and a further group of 29 children from another town where no poliomyelitis had occurred. The results of the immunity tests in these three groups proved to be almost identical (16).

Fairbrother and Brown, in an English boarding school, in a small series of neutralisation tests, however, obtained results more comparable with Dudley's findings in diphtheria, namely that immunity does not develop unless the disease is present clinically in the community (16).

Investigations were also made by Aycock and other American observers on the neutralising effect of blood from 77 persons living in localities where poliomyelitis is extremely rare, compared with that from 93 persons living in localities where the disease is common.

Their results support the view that the power of neutralisation proceeds at a rate independent of the incidence of the clinical disease (17).

Certainly the rarity of the disease in Irlam in past years would give little opportunity for immunisation to develop if this were dependent on the presence of clinical cases. An Editorial in the *Journal of the American Medical Association* (18) says:—"Since Wickman first assumed the existence of an abortive form of poliomyelitis, the impression has become general that much, if not all of the adult immunity to this infection is due to mass immunisation of growing children by unrecognised subclinical attacks of the disease. Doubt as to the validity of this conclusion is implied in the current epidemiological studies of Kramer and Aycock. They seem to have been forced to the conclusion that effective contact with the immunising virus does not take place at the time of epidemics. Apparently, the immunisation is a more or less continuous process extending throughout the year, or perhaps even limited to inter-epidemic periods."

A study of the data in Lancashire (1) and in the Irlam outbreak had already led the writer to believe that it was possible to conceive of the virus being widely spread, and of such low virulence locally as to give rise to latent epidemisation on a large scale without clinical cases occurring; an increase in the activity of the virus might give rise either to an outbreak such as occurred in Irlam, or to the puzzling sporadic cases at other times, the outbreak being limited by the large number of persons in the district with acquired immunity.

This point as to the possibility of widespread immunisation taking place in the absence of clinical cases is of interest in view of the difficulty in explaining (in another connection) how it is that in isolated communities where diphtheria has been unknown for many years, Schick testing has shown a high rate of immunes.



For example, diphtheria outbreaks have been very rare during the present century among the Eskimos, although some were reported in the last century. Recent Schick testing of 170 Eskimos (27) of various ages has shown a percentage of immunes only slightly less than that obtained in localities where diphtheria is common; the results of throat swabbing of 329 Eskimos in 1930-31 showed typical diphtheria bacilli of a weakly virulent type present in a number of cases (28).

These researches indicate that latent epidemisation is going on with bacilli of such low virulence that clinical cases do not occur.

It is possible that something of the same sort may occur with the virus of Poliomyelitis.

#### **PATHOLOGY.**

Walshe, in a paper at the annual meeting of the B.M.A. in 1933, expresses the view that the virus enters the nervous system by the axis cylinders of the olfactory nerve, enters the olfactory bulb, and is spread thence within the nervous system by axonal channels. The primary lesion is of the nerve cell, and not of the interstitial tissue; he opposes the view formerly held that the spread is along the blood vessels into the cord, affecting first the interstitial tissue, and secondarily the nerve cells, or that the virus travels by the olfactory perineural lymphatics from naso-pharynx to subarachnoid space and thence through the nervous system by the cerebro-spinal fluid. He says: "It is clear we are rapidly approaching a conception of poliomyelitis which regards it as primarily and exclusively an infection of nervous tissue with no initial stage of systemic infection" (19). The spread of the virus by axonic transmission has also been suggested by Hurst and others in recent years (20). It is not surprising that in view of this Walshe regards serum treatment, as at present known, as useless—in that the nerve tissue is involved at the outset, and quotes Flexner (21) in support of a view that unless it is given within 24 hours of the infection by the virus, the serum is of no avail.

Purdon Martin (22) at the same meeting of the Section of Neurology, pointed out that if the belief in systemic infection is abandoned, the ideas of acquired immunity (such as have been touched upon earlier in this paper) would have to be abandoned, and says, "I am convinced that the disease ordinarily consists of a *general* as well as a *nervous* infection, and further that in the majority of infected persons the nervous system is not involved." He further points out that the development of immune bodies in the blood, as observed in experiments, is strongly suggestive of general infection.

Further: "If we take the most constant and definite of symptoms as a criterion, the degree of fever seen in Poliomyelitis is uncommon in encephalitis but common in general infections."

Regarding the value of serum, he contends that the great expectations aroused have not been justified in later practice: the recognition of the preparalytic stage led to the use of serum upon many cases of the mild abortive type which would have recovered without the use of serum. Hence the credit was given to the use of serum for many recoveries in this class of case. All our theoretical knowledge is in support of the use of serum, but controlled observations, according to Dr. Walshe, have not yet established its merit (19).

While the majority of investigators favour the theory that the portal of entry is the naso-pharynx, there are others also who feel that the evidence is strong in favour of an access by way of the digestive tract, at any rate in many cases. It was first suggested in 1898 and Wiekman concluded that the gastro-intestinal was the more probable route of infection in man (23).

In an epidemic in Westphalia, Krause in 1909 reported that in 90 per cent. of cases the onset was marked by gastro-intestinal disturbances. In eight fatal cases autopsy showed a striking change throughout the intestine, especially of Peyer's patches and of the solitary follicles, most marked around the ileocecal valves, and the mesenteric nodes were swollen. He concluded that epidemiological, clinical and pathological findings indicated the intestinal tract as the portal of entry (23). After passing along the digestive mucosa, according to Kling, Levaditi and Lepine, in 1929, the virus travels towards the central nervous system along the "filets" of the abdominal sympathetics (24).

They consider it probable that the virus first reaches the neurons of the visceral ganglia of the neuro-vegetative system and then passes along the axons towards the rami communicantes, the spinal ganglia, roots and anterior horns.

From a study of 134 autopsy cases in New York City in 1931, Smith concluded that the lymphoid tissue of the lower ileum and the adjacent lymph nodes were the first to show evidence of the disease. "The Peyer's patches were enlarged, injected and in many cases actually ulcerated." It seemed to him, therefore, "that the gastro-intestinal tract is probably the usual portal of entry of the infection" (24).

Is it not possible that widespread consumption of food or milk infected by the virus of poliomyelitis, perhaps through fly contamination, from cases or carriers, may account for the equally widespread immunity developing?

This would be akin to what is believed by some to occur in bovine tuberculosis; the ingestion of milk infected with the bacilli, in a degree insufficient to cause clinically recognisable disease, leading to mild reactions that build up a partial or complete immunity against future infection.

#### **EARLY SYMPTOMS.**

Dr. Drysdale has kindly furnished the following general summary regarding six children under his care in the Irlam outbreak. More detailed notes are given in the appended table:—



*Fever.*—The temperature ranged from  $101^{\circ}$  to  $102.5^{\circ}$  in all cases and lasted for four to six days approximately. Nasal discharge was present in three cases and was serous and mucous only.

*Drowsiness.*—All the cases were acutely ill and semi-comatose for two to three days.

Screaming fits occurred during the acute phase and gradually lessened towards the end of the first week; they may be due to local pains in the affected limbs. These pains appear to come on in "paroxysms," especially at night. All the mothers complained that the children, during the attack and afterwards, were irritable and bad tempered, otherwise happy children becoming quite peevish.

*Meningeal Symptoms.*—Head retraction was noted in four out of the six cases, and appeared on the 2nd and 3rd day and became gradually more pronounced for two or three days after. There was pain on moving the particular group of muscles that were later to show paralysis; the onset of this seemed to coincide with the head retraction.

The head retraction is probably due to an inflammation of the meninges over the posterior nerve roots, which causes pain when the spine is flexed.

The "spine sign," a disinclination to flex the spine anteriorly, is an important diagnostic point.

The patient is disinclined to bend the head forward on account of pain experienced in so doing, and there is resistance to passive anterior flexion of the neck. When the patient is raised by the shoulders, the head falls backwards, and the patient cannot easily bring it forward again.

One investigator suggests putting a penny on the child's knee and saying "You can have it if you kiss your knee." The child will attempt it very gingerly and fail if the "spine sign" is present.

Amos's sign is a modification of the spine sign, and as it is more applicable to older children, was not tried in these cases.

#### PARALYTIC SYMPTOMS.

The further development of the cases, with details as to age and onset, and the progress of the cases to date, is summarised in the accompanying table. It will be noted that four cases have made a complete recovery, including one with facial paresis, and that the remainder are progressing well.

#### TREATMENT.

All the cases were treated by their own medical practitioners in the usual way by rest, immobilisation and general measures. Arrangements were made, following notification, for the Orthopædic Surgeon, Mr. E. S. Brentnall, to see all the affected children, in consultation with the Medical Practitioner. One case, where the home conditions were adverse, was admitted to Biddulph Orthopædic Hospital, and in a second case this was advised, but unfortunately the parents were unwilling to allow the child to go. Splints were supplied in two cases, and plastering was advised and done at the Clinic in another case. Serum treatment was considered when the cases were first seen, but was not recommended, after consultation between all concerned with the cases.

No doubt, had it been used, it would have appeared that the complete recovery of four out of the nine cases was due to serum.

Still (26) points out that complete recovery "which is rare in ordinary sporadic infantile paralysis," has been quite a common feature in epidemics. (Caverley reported 50 complete recoveries in 126 cases. The Irlam outbreak showed a similar proportion.)

One reason for this apparent difference in the proportion of recoveries in sporadic cases and in epidemics that suggests itself is that in the presence of an epidemic slight cases with transient paralytic symptoms, like some reported in this outbreak, and abortive cases also, are recognised, whereas many similar cases occurring sporadically would probably be missed, only the sporadic cases with definite paralysis being reported.

#### PREVENTION.

If the views suggested in this article are tentatively accepted, it is reasonable that especial precautions should be taken in the hot summer months, particularly to safeguard milk and other foods of children against fly contamination. Cases of the disease should not only be isolated, but all articles infected by the nasal secretions thoroughly disinfected—paper handkerchiefs should be used and burned. During August and September in particular, all cases of illness in children with a temperature of  $101^{\circ}$  and above, lasting more than a day, accompanied by a semi-comatose condition, or with a history of "screaming fits" should be viewed with suspicion, and irritability of the neck muscles (retraction of the head) looked for from the second day onwards.

An isolation period of three weeks from onset of febrile symptoms is recommended, and a similar quarantine for children exposed to infection, and exposed adults, in so far as their occupation brings them into contact with children or involves handling foodstuffs (25).

During an epidemic it is inadvisable for children to mingle in crowds.

Gargling with antiseptics is now regarded as harmful as a prophylactic measure, as it may destroy the virucidal power existing in the normal secretions of the naso-pharynx, but normal saline may be used.

I am indebted to Dr. A. B. S. Drysdale and Dr. W. E. Laing for clinical notes and co-operation helpful throughout the investigation; also to the Health Department of the Irlam Urban District Council; to Mr. E. S. Brentnall, F.R.C.S., Orthopædic Surgeon, and to the Staffs of Biddulph Grange Orthopædic and Park Hospitals for valuable assistance in compiling the foregoing particulars.



| Case.                     | Age.  | Date of Onset.      | Chief Preparalytic Symptoms.                                                                                                                                                                                         | Paralytic Stage.                                                                                                               | Progress.                                                                                                                                                                                               |
|---------------------------|-------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 F.S.                    | 4     | Aug. 13th           | 1st day fever, vomiting and delirium; on 3rd day temperature 102°, nasopharyngeal discharge.                                                                                                                         | R. thenar and R. calf muscles commenced about 6th day.                                                                         | Still under treatment by plaster, etc.                                                                                                                                                                  |
| 2 C. ...                  | 3     | Aug. 15th           | Fever, diarrhoea and semi-comatose. Temperature 102° several days; severe screaming fits. Slight meningismus.                                                                                                        | R. side incomplete facial paresis (orbicularis palpebrarum and levator anguli oris) commenced on 5th day, lasting 4 or 5 days. | Complete recovery by 21st September.                                                                                                                                                                    |
| 3 R.B.                    | 2     | Aug. 25th (approx.) | Fever and convulsion ... ..                                                                                                                                                                                          | R. foot evertors and dorsi-flexors and early equinus deformity. L. hamstring paresis with some genu recurvatum.                | Tendency to drop-foot and flaccidity. R. Leg muscles $\frac{1}{4}$ in. wasting. L. Leg shows $\frac{1}{4}$ -in. wasting. Gets about well with splint on left leg. Refused hospital treatment.           |
| 4 T.R.                    | 29    | Sept. 3rd           | Pain in lumbar region, later in abdomen, with fever. Third day retention of urine; temperature 102°; admitted to hospital.                                                                                           | ...                                                                                                                            | Lumbar puncture; pressure 260 m.m. water; died 2 days after admission; micro sections of spinal cord show histological changes similar to, but not completely characteristic of anterior poliomyelitis. |
| 5 M.C.                    | 3     | Sept. 8th           | 1st day, temperature 102.5°, serous nasal discharge. 3rd day, Meningismus, irritability, screaming fits. Acutely ill for a week.                                                                                     | L. quadriceps weak ... ..                                                                                                      | Complete recovery by 21st December.                                                                                                                                                                     |
| 6 O.C. (Sister of case 5) | 11/12 | Sept. 13th          | 1st day, nasal catarrh. Temperature 101° on 2nd day; head retraction and screaming fits from 3rd day.                                                                                                                | R. hamstrings and dorsi-flexors of foot...                                                                                     | R. leg still weak and requires use of splint.                                                                                                                                                           |
| 7 R.W.                    | 5½    | Sept. 15th          | 1st day, Temperature 101.5°; acutely ill, pain in frontal region. 2nd day, stiff neck, pains in thighs; 3rd day, retraction of head, acute pain on movement, and in the night, especially in thighs—anterior aspect. | Some paresis of thigh muscles, of a temporary nature.                                                                          | Meningeal symptoms lasted several weeks. Complete recovery.                                                                                                                                             |
| 8 R.F.                    | 8/12  | Sept. 16th          | Diarrhoea, temperature 100°; head retraction 3rd or 4th day.                                                                                                                                                         | Paresis of leg on 5th day. Transient ...                                                                                       | Complete recovery.                                                                                                                                                                                      |
| 9 J.D.                    | 4     | Sept. 19th          | Fever, fretfulness and anorexia ...                                                                                                                                                                                  | Flaccid R. Leg. Unable to stand ...                                                                                            | Sent to Biddulph Orthopaedic Hospital and put in plaster. By January, 1934, weight bearing on R. Leg in plaster shell and being fitted with fibrous anticus.                                            |

## REFERENCES.

- 1.—Percy Stocks. *Journal of Hygiene*. Vol. XXXII. No. 2. 19th April, 1932. "On the Incidence of Encephalitis Lethargica and Acute Anterior Poliomyelitis in Lancashire and Elsewhere." p. 222.
- 2.—Ministry of Health. Memorandum on Acute Poliomyelitis No. 166. November, 1932.
- 3.—Poliomyelitis. A Survey by the International Committee for the study of Infantile Paralysis. 1932.
- 4.—C. Paget Lapage. "Encephalitis, Polio-encephalitis, and Vaccinal encephalitis in Children." *B.M.J.* 13th May, 1933.
- 5.—Poliomyelitis Survey. *Ibid.* p. 345.
- 6.—*Ibid.* pp. 46 and 67.
- 7.—*Ibid.* p. 73.
- 8.—*Ibid.* pp. 76-77.
- 9.—*Ibid.* pp. 78, 79, 458.
10. *Ibid.* p. 442.
- 11.—*Ibid.* pp. 474-478.
- 12.—Joseph Fine. *Filterable Virus Diseases in Man.* p. 76.
- 13.—Poliomyelitis Survey. *Ibid.* pp. 465-470.
- 14.—Percy Stocks. *Ibid.* pp. 237-238.
- 15.—New York City Department of Health. *Weekly Bulletin*. 20 : 295, 1931. "Poliomyelitis : multiple cases in a family" ; also *Ibid.* 20 : 333. 1931.
- 16.—Poliomyelitis Survey. *Ibid.* pp. 338-339.
- 17.—*Ibid.* pp. 448-449.
- 18.—*Journal American Medical Association*. 98 : 405, 1932. "Abortive Poliomyelitis."
- 19.—F. M. R. Walshe. "A Paper on Poliomyelitis." *B.M.J.* 30th December, 1933. p. 1197.
- 20.—Poliomyelitis Survey. *Ibid.* p. 261.
- 21.—*B.M.J.* 1933. i. p. 132.
- 22.—Purden Martin. "The Bearing of Recent Work on Certain Aspects of Poliomyelitis." *B.M.J.* 30th December, 1933. p. 1200.
- 23.—Poliomyelitis Survey. *Ibid.* p. 257.
- 24.—*Ibid.* p. 258.
- 25.—*Ibid.* p. 216.
- 26.—G. F. Still. "Common Disorders and Diseases of Childhood." 3rd Edition.
- 27.—J. Ralph Wells. *American Journal of Hygiene*. November, 1933. "The origin of immunity to Diphtheria in Eskimos." pp. 656-671.
- 28.—*Ibid.* pp. 629-653.

**Reports under Sanitary Officers Order, 1926.**—"Special reports" under this Order received from local Medical Officers of Health by the County Council during the year 1933 numbered 199. Of these, 136 related to school closures, 19 to encephalitis lethargica, 7 to smallpox, and the remainder to other diseases.

**Hospital Isolation.**—Table 6, pages 159 to 172, shows the nature of the hospital accommodation provided in, or available for, each County sanitary district, and also gives for each district :—

- (a) the number of cases of infectious disease notified ;
- (b) the total deaths from such diseases ;
- (c) the number of cases removed to hospital ; and
- (d) the number of deaths in hospital.

**Disinfection.**—The following statement, showing the position of the County districts in regard to the provision of disinfecting apparatus, is prepared from information supplied by local Medical Officers of Health :—

|                                                                                            |     |     |     |    |
|--------------------------------------------------------------------------------------------|-----|-----|-----|----|
| Districts provided with steam apparatus, or using steam apparatus at hospitals             | ... | ... | ... | 63 |
| „ using steam apparatus belonging to other districts (mainly County or Municipal Boroughs) | ... | ... | ... | 25 |
| „ provided with dry heat apparatus                                                         | ... | ... | ... | 1  |
| „ without proper appliances                                                                | ... | ... | ... | 22 |

Houses, or rooms, disinfected in 1933 numbered 10,181.

The position of each district in regard to disinfecting apparatus is shown in Table 6, pages 159 to 172.

**Disinfestation.**—In 22 districts, it is stated, facilities are available for the bathing of verminous persons ; disinfestation was carried out in 254 instances.

**Swinton and Pendlebury.**—The Medical Officer of Health reports :—From the commencement of operations for the rehousing of displaced tenants from clearance areas it was recognised that some form of disinfestation was necessary to ensure that the occupants and their household effects should be free from vermin upon entering the new municipal house. The Health Committee were unanimously of the opinion that the same treatment should be given to all, but considerable opposition was aroused. A meeting was called of all persons affected, and an offer was made to remove and rehouse the people, in the order they submitted their names to the Health Officer the following morning, with the result that no family has been rehoused which has not voluntarily submitted to the full process.



The conditions which have been strictly adhered to are :—

1. The disinfection of all household effects by treatment with Zyclon B ;
2. The steam disinfection of personal clothing ;
3. Facilities offered for personal bathing.

**Animal and Insect Pests.**—Measures for the suppression of these pests are reported from 22 districts.

**Tuberculosis.**—NOTIFIED CASES AND DEATHS.—The following table gives particulars of the new cases of tuberculosis reported by local Medical Officers of Health in their *Annual Reports* as having been received by them from medical practitioners during the year 1933, and details of the deaths registered are also given :—

| Age—Periods.      | NEW CASES. |     |                |     | DEATHS.    |     |                |     |
|-------------------|------------|-----|----------------|-----|------------|-----|----------------|-----|
|                   | Pulmonary. |     | Non-Pulmonary. |     | Pulmonary. |     | Non-Pulmonary. |     |
|                   | M.         | F.  | M.             | F.  | M.         | F.  | M.             | F.  |
| Years.            |            |     |                |     |            |     |                |     |
| 0—1 ... ..        | 2          | 1   | 11             | 2   | —          | —   | 9              | 3   |
| 1—5 ... ..        | 6          | 4   | 99             | 69  | 1          | —   | 32             | 23  |
| 5—10 ... ..       | 18         | 15  | 78             | 71  | 4          | 5   | 11             | 8   |
| 10—15 ... ..      | 24         | 30  | 52             | 77  | 4          | 11  | 8              | 11  |
| 15—20 ... ..      | 72         | 95  | 43             | 53  | 34         | 50  | 10             | 11  |
| 20—25 ... ..      | 101        | 127 | 42             | 56  | 56         | 76  | 6              | 9   |
| 25—35 ... ..      | 198        | 215 | 38             | 72  | 108        | 125 | 18             | 17  |
| 35—45 ... ..      | 191        | 115 | 32             | 41  | 119        | 69  | 4              | 11  |
| 45—55 ... ..      | 162        | 78  | 14             | 16  | 125        | 49  | 4              | 10  |
| 55—65 ... ..      | 92         | 33  | 15             | 9   | 92         | 29  | 8              | 5   |
| 65 and upwards... | 29         | 25  | 5              | 9   | 30         | 23  | 9              | 5   |
| Total ... ..      | 895        | 738 | 429            | 475 | 573        | 437 | 119            | 113 |
|                   | *1633      |     | *904           |     | 1010       |     | 232            |     |

\*These case notifications which, as stated above, are those reported by local Medical Officers of Health in their annual reports for the year ended 31st December, 1933, differ in number from the notifications of new cases in the weekly returns under the *Tuberculosis Regulations*, the former exceeding the latter by—pulmonary, 132 cases ; non-pulmonary, 73 cases. The difference is mainly accounted for by the fact that all notifications reported on the weekly returns made under the *Tuberculosis Regulations* are carefully scrutinized in the County Public Health Department with the card index, and “duplicate” notifications are excluded before the County tuberculosis statistics given on pages 202 and 203 are prepared.

**TUBERCULOSIS DEATHS AND DEATH-RATE.**—PULMONARY.—The County death-rate from tuberculosis of the respiratory system (pulmonary) was 0·55 per 1,000 of the estimated population, as compared with 0·54 in 1932, 0·56 in 1931, 0·57 in 1930, and 0·60 in 1929. The mortality per cent. from this cause to total deaths from all causes was 4·26.

Below are given the County death-rates from pulmonary tuberculosis for the years 1925–1933, and the quinquennial averages for the years 1895–1929 :—

|                          | ADMINISTRATIVE COUNTY. |                   |                    |                                               | ENGLAND AND WALES. |                                      |
|--------------------------|------------------------|-------------------|--------------------|-----------------------------------------------|--------------------|--------------------------------------|
|                          | Urban Death Rate.      | Rural Death Rate. | County Death Rate. | Mortality per cent. of total deaths (County). | Death Rate.        | Mortality per cent. of total deaths. |
| Average 1895–1899 ... .. | 1·22                   | 1·03              | 1·19               | —                                             | —                  | —                                    |
| „ 1900–1904 ... ..       | 0·96                   | 0·77              | 0·94               | —                                             | —                  | —                                    |
| „ 1905–1909 ... ..       | 0·89                   | 0·74              | 0·88               | —                                             | —                  | —                                    |
| „ 1910–1914 ... ..       | 0·86                   | 0·67              | 0·84               | —                                             | —                  | —                                    |
| „ 1915–1919 ... ..       | 1·00                   | 0·79              | 0·97               | —                                             | —                  | —                                    |
| „ 1920–1924 ... ..       | 0·74                   | 0·59              | 0·72               | —                                             | —                  | —                                    |
| „ 1925–1929 ... ..       | 0·64                   | 0·48              | 0·62               | 4·9                                           | 0·78               | 6·4                                  |
| Year 1925... ..          | 0·69                   | 0·55              | 0·67               | 5·3                                           | 0·83               | 6·8                                  |
| „ 1926... ..             | 0·67                   | 0·49              | 0·64               | 5·3                                           | 0·77               | 6·6                                  |
| „ 1927... ..             | 0·63                   | 0·47              | 0·61               | 4·8                                           | 0·79               | 6·4                                  |
| „ 1928... ..             | 0·61                   | 0·45              | 0·58               | 4·9                                           | 0·75               | 6·5                                  |
| „ 1929... ..             | 0·62                   | 0·48              | 0·60               | 4·3                                           | 0·79               | 5·9                                  |
| „ 1930... ..             | 0·60                   | 0·40              | 0·57               | 4·8                                           | 0·73               | 6·4                                  |
| „ 1931... ..             | 0·59                   | 0·38              | 0·56               | 4·3                                           | 0·74               | 6·0                                  |
| „ 1932... ..             | 0·56                   | 0·37              | 0·54               | 4·3                                           | 0·68               | 5·7                                  |
| „ 1933... ..             | 0·58                   | 0·40              | 0·55               | 4·2                                           | 0·69               | 5·6                                  |

The following table shows the male and female deaths from this disease at various age periods during 1933 and the previous year :—

|          | At all<br>Ages. | Under<br>1 year. | 1 and<br>under<br>2<br>years. | 2 and<br>under<br>5<br>years. | 5 and<br>under<br>15<br>years. | 15 and<br>under<br>25<br>years. | 25 and<br>under<br>35<br>years. | 35 and<br>under<br>45<br>years. | 45 and<br>under<br>55<br>years. | 55 and<br>under<br>65<br>years. | 65 and<br>under<br>75<br>years. | 75 and<br>up-<br>wards. |
|----------|-----------------|------------------|-------------------------------|-------------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------|
| Males—   |                 |                  |                               |                               |                                |                                 |                                 |                                 |                                 |                                 |                                 |                         |
| 1932 ... | 540             | 2                | —                             | 2                             | 6                              | 95                              | 111                             | 99                              | 119                             | 90                              | 15                              | 1                       |
| 1933 ... | 573             | —                | 1                             | —                             | 8                              | 90                              | 108                             | 119                             | 125                             | 92                              | 27                              | 3                       |
| Females— |                 |                  |                               |                               |                                |                                 |                                 |                                 |                                 |                                 |                                 |                         |
| 1932 ... | 435             | —                | 1                             | —                             | 18                             | 121                             | 113                             | 98                              | 34                              | 35                              | 12                              | 3                       |
| 1933 ... | 437             | —                | —                             | —                             | 16                             | 126                             | 125                             | 69                              | 49                              | 29                              | 19                              | 4                       |

The death-rate from pulmonary tuberculosis (classified by the Registrar-General as “tuberculosis of the respiratory system”) for each urban and rural district in the County area in the year 1933, is given in Table 2 on pages 18 to 25, and the 1933 district death-rates are compared with the previous year and the mean of the five years 1928–1932 on pages 251 to 274.

The highest district death-rates per 1,000 of the population from pulmonary tuberculosis in the year 1933 were :—Litherland 1·44, Dalton-in-Furness 1·26, Longridge 1·21, Waterloo-with-Seaforth 1·04, Widnes (B) 0·94, Ince-in-Makerfield 0·89, Preseot 0·87, and Aspull and Golborne each 0·86.

Extending over a period of five years, 1929–1933, the following districts had the greatest pulmonary mortality :—Litherland 1·22, Dalton-in-Furness 1·09, Haslingden (B) 1·02, Adlington and Widnes (B) each 0·97, Waterloo-with-Seaforth 0·89, Ince-in-Makerfield and Kirkham each 0·86, and Droylsden 0·85.

NON-PULMONARY TUBERCULOSIS.—The table below analyses the deaths from non-pulmonary tuberculosis during 1933 and the previous year at various age periods :—

|             | At all<br>ages. | Under<br>1 year. | 1 and<br>under<br>2<br>years. | 2 and<br>under<br>5<br>years. | 5 and<br>under<br>15<br>years. | 15 and<br>under<br>25<br>years. | 25 and<br>under<br>35<br>years. | 35 and<br>under<br>45<br>years. | 45 and<br>under<br>55<br>years. | 55 and<br>under<br>65<br>years. | 65 and<br>under<br>75<br>years. | 75 and<br>up-<br>wards. |
|-------------|-----------------|------------------|-------------------------------|-------------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------|
| 1932 ... .. | 238             | 18               | 22                            | 32                            | 26                             | 49                              | 20                              | 24                              | 20                              | 16                              | 9                               | 2                       |
| 1933 ... .. | 232             | 12               | 26                            | 29                            | 38                             | 36                              | 35                              | 15                              | 14                              | 13                              | 12                              | 2                       |

THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.—NOTIFICATIONS.—Table 7, page 202, and table 8, page 203, analyse, both as regards the parts of the body affected and in age periods, the notifications of tuberculosis received *under the above Regulations* from district Medical Officers of Health on their Weekly Returns during the fifty-two weeks ended on the 30th December, 1933, corrected by the exclusion of duplicates.

Since February 1st, 1913, tuberculosis, both “pulmonary” and “other forms,” has been compulsorily notifiable ; previous to that date it was incompletely notifiable.

The following table shows that the total pulmonary notifications in 1933 are 16 less than in the previous year, and, although slightly in excess of the figures for 1931, which were the lowest on record, give a case-rate of 0·83 per 1,000, as against the previous best of 0·82 in 1931. In the non-pulmonary section the notification rate is 0·45, which constitutes a new low record. For purposes of comparison the corresponding rates for England and Wales are given in the table :—



| Year.                             | Administrative County of Lancaster. |                                    |                              |                                    | England and Wales.§                |                                    |
|-----------------------------------|-------------------------------------|------------------------------------|------------------------------|------------------------------------|------------------------------------|------------------------------------|
|                                   | Pulmonary Tuberculosis.             |                                    | Other forms of Tuberculosis. |                                    | Pulmonary Tuberculosis.            | Other forms of Tuberculosis.       |
|                                   | Cases notified.                     | Case rate per 1,000 of population. | Cases notified.              | Case rate per 1,000 of population. | Case rate per 1,000 of population. | Case rate per 1,000 of population. |
| 1913 (11 months) ...              | 2700                                | 1.54                               | 1592                         | 0.90                               | 2.20<br>(whole year)               | 0.99                               |
| 1914 ...                          | 2820                                | 1.61                               | 1140                         | 0.65                               | 2.05                               | 0.63                               |
| 1915 ...                          | 2872                                | 1.64                               | 1128                         | 0.64                               | 1.93                               | 0.63                               |
| <b>Average 3 years, 1913-1915</b> | ...                                 | <b>1.59</b>                        | ...                          | <b>0.73</b>                        | <b>2.06</b>                        | <b>0.75</b>                        |
| 1916 ...                          | 2689                                | 1.52                               | 1180                         | 0.66                               | 1.96                               | 0.65                               |
| 1917 ...                          | 2375                                | 1.35                               | 1062                         | 0.60                               | 2.01                               | 0.61                               |
| 1918 ...                          | 2534                                | 1.47                               | 885                          | 0.51                               | 2.10                               | 0.55                               |
| 1919 ...                          | 2105                                | 1.21                               | 847                          | 0.48                               | 1.72                               | 0.46                               |
| 1920 ...                          | 2084                                | 1.20                               | 968                          | 0.55                               | 1.55                               | 0.41                               |
| <b>Average 5 years, 1916-1920</b> | ...                                 | <b>1.35</b>                        | ...                          | <b>0.56</b>                        | <b>1.86</b>                        | <b>0.53</b>                        |
| 1921 ...                          | 2044                                | 1.16                               | 899                          | 0.51                               | 1.48                               | 0.40                               |
| 1922 ...                          | 1877                                | 1.06                               | 968                          | 0.54                               | 1.40                               | 0.41                               |
| 1923 ...                          | 1970                                | 1.11                               | 1219                         | 0.68                               | 1.54†                              | 0.52†                              |
| 1924* ...                         | 2029                                | 1.13                               | 1158                         | 0.64                               | 1.56                               | 0.52                               |
| 1925 ...                          | 1929                                | 1.07                               | 1076                         | 0.60                               | 1.56                               | 0.53                               |
| <b>Average 5 years, 1921-1925</b> | ...                                 | <b>1.10</b>                        | ...                          | <b>0.59</b>                        | <b>1.50</b>                        | <b>0.47</b>                        |
| 1926 ...                          | 1889                                | 1.05                               | 994                          | 0.55                               | 1.52                               | 0.51                               |
| 1927 ...                          | 1862                                | 1.03                               | 1096                         | 0.60                               | 1.48                               | 0.50                               |
| 1928 ...                          | 1723                                | 0.95                               | 1008                         | 0.55                               | 1.46                               | 0.51                               |
| 1929 ...                          | 1578                                | 0.87                               | 957                          | 0.52                               | 1.45                               | 0.46                               |
| 1930 ...                          | 1590                                | 0.87                               | 1037                         | 0.57                               | 1.36                               | 0.46                               |
| <b>Average 5 years, 1926-1930</b> | ...                                 | <b>0.95</b>                        | ...                          | <b>0.55</b>                        | <b>1.45</b>                        | <b>0.48</b>                        |
| 1931* ...                         | 1498                                | 0.82                               | 911                          | 0.50                               | 1.24                               | 0.49                               |
| 1932 ...                          | 1517                                | 0.84                               | 870                          | 0.48                               | 1.28                               | 0.44                               |
| <b>1933 ...</b>                   | <b>1501†</b>                        | <b>0.83</b>                        | <b>831†</b>                  | <b>0.45</b>                        | <b>1.23</b>                        | <b>0.40</b>                        |

The County totals given for 1933 exclude 277 duplicate notifications ; 1,332 notifications were received on Form I (admissions to Institutions), and 1,259 on Form II (discharges from Institutions).

\* 53 weeks. § Figures extracted from Report of Chief Medical Officer, Ministry of Health.

† From 1923 onwards figures include " fresh cases " ascertained otherwise than by formal notification.

‡ Following on a suggestion made by the Chief Medical Officer of the Ministry of Health, any case notified as tuberculosis since the year 1925, and found, as the result of observation and examination by the Tuberculosis Officer, to have been wrongly notified, is removed from the Register and the notification cancelled, the consent of the notifying medical practitioner to the withdrawal of the notification having been previously obtained. Of the cases notified in 1933, 99 such withdrawals (48 pulmonary and 51 non-pulmonary) have so far (to 30th June, 1934), taken place. (See footnote on Table 7). The totals given above, and in Tables 7 and 8 are the gross notifications.

For reference, and for the information of the County Tuberculosis Department, a card index of every case notified, and also a record of the deaths from tuberculosis, are kept up-to-date in the County Public Health Department, and all notifications received by the County Medical Officer of Health are forwarded each week to the County Tuberculosis Department.

Cases on Local Registers.—From the returns supplied by the local Medical Officers of Health under the Tuberculosis Regulations, the number of cases of tuberculosis on the local registers on the 31st December, 1933, was as under :—

|                            | Males.       | Females.     | Total.         |
|----------------------------|--------------|--------------|----------------|
| Pulmonary tuberculosis ... | 3,679        | 3,177        | 6,856          |
| Non-pulmonary tuberculosis | 2,493        | 2,809        | 5,302          |
| <b>Total ...</b>           | <b>6,172</b> | <b>5,986</b> | <b>*12,158</b> |

\*The above totals are, as stated, compiled from the records of local Medical Officers of Health. They include cases notified in mental hospitals, and many other public institutions, and doubtless in many districts also include a number of old cases which ought to be removed from the registers, such as deaths, removals, etc. The County Public Health Department, in co-operation with the County Tuberculosis Department, as opportunity offers, is comparing the local registers with the County records and informing local Medical Officers of Health of entries which should be deleted.

Notifications in 1933 in age groups.—The following tables give, in certain specified age groups, the male and female notified cases of pulmonary and non-pulmonary tuberculosis in the year 1933. For comparative purposes the figures for the preceding ten years are given :—

## PULMONARY TUBERCULOSIS.

| Years         | 0<br>to<br>1 | 1<br>to<br>5 | 5<br>to<br>10 | 10<br>to<br>15 | 15<br>to<br>20 | 20<br>to<br>25 | 25<br>to<br>35 | 35<br>to<br>45 | 45<br>to<br>55 | 55<br>to<br>65 | 65<br>and<br>up | Total. | Total<br>M.&F. |
|---------------|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|--------|----------------|
| 1923 ... M. { | 2            | 10           | 43            | 44             | 83             | 133            | 238            | 211            | 149            | 96             | 13              | 1022   | } 1970         |
| ... F. {      | 1            | 14           | 47            | 63             | 115            | 151            | 256            | 152            | 84             | 49             | 16              | 948    |                |
| 1924 ... M. { | 1            | 29           | 40            | 57             | 105            | 113            | 212            | 206            | 201            | 97             | 18              | 1079   | } 2029         |
| ... F. {      | 4            | 14           | 31            | 59             | 144            | 142            | 226            | 175            | 94             | 49             | 12              | 950    |                |
| 1925 ... M. { | ...          | 24           | 39            | 43             | 85             | 117            | 220            | 208            | 194            | 75             | 25              | 1030   | } 1929         |
| ... F. {      | 3            | 14           | 31            | 48             | 150            | 158            | 204            | 142            | 89             | 34             | 26              | 899    |                |
| 1926 ... M. { | 1            | 11           | 35            | 45             | 92             | 113            | 215            | 205            | 159            | 114            | 24              | 1014   | } 1889         |
| ... F. {      | 2            | 13           | 47            | 49             | 116            | 171            | 229            | 123            | 72             | 40             | 13              | 875    |                |
| 1927 ... M. { | 1            | 14           | 50            | 44             | 117            | 112            | 204            | 194            | 192            | 86             | 20              | 1034   | } 1862         |
| ... F. {      | ...          | 15           | 41            | 56             | 132            | 133            | 197            | 118            | 74             | 51             | 11              | 828    |                |
| 1928 ... M. { | 2            | 10           | 35            | 24             | 76             | 110            | 193            | 169            | 179            | 84             | 27              | 909    | } 1723         |
| ... F. {      | ...          | 7            | 34            | 34             | 129            | 148            | 202            | 131            | 62             | 46             | 21              | 814    |                |
| 1929 ... M. { | 4            | 8            | 34            | 22             | 83             | 100            | 164            | 184            | 173            | 78             | 23              | 873    | } 1578         |
| ... F. {      | ...          | 11           | 19            | 26             | 113            | 134            | 200            | 100            | 54             | 28             | 20              | 705    |                |
| 1930 ... M. { | 1            | 6            | 19            | 27             | 68             | 107            | 193            | 182            | 161            | 84             | 23              | 871    | } 1590         |
| ... F. {      | ...          | 6            | 17            | 30             | 112            | 126            | 193            | 111            | 65             | 38             | 21              | 719    |                |
| 1931 ... M. { | 2            | 8            | 18            | 19             | 75             | 120            | 156            | 163            | 165            | 91             | 25              | 842    | } 1498         |
| ... F. {      | ...          | 8            | 10            | 27             | 100            | 122            | 156            | 113            | 60             | 39             | 21              | 656    |                |
| 1932 ... M. { | 1            | 4            | 18            | 22             | 76             | 105            | 187            | 152            | 144            | 110            | 21              | 840    | } 1517         |
| ... F. {      | ...          | 4            | 19            | 34             | 93             | 148            | 165            | 94             | 60             | 41             | 14              | 677    |                |
| 1933 ... M. { | 2            | 5            | 16            | 19             | 70             | 84             | 190            | 178            | 161            | 87             | 27              | 839    | } *1501        |
| ... F. {      | ...          | 4            | 12            | 26             | 86             | 105            | 208            | 105            | 65             | 29             | 22              | 662    |                |

## NON-PULMONARY TUBERCULOSIS.

| Years         | 0<br>to<br>1 | 1<br>to<br>5 | 5<br>to<br>10 | 10<br>to<br>15 | 15<br>to<br>20 | 20<br>to<br>25 | 25<br>to<br>35 | 35<br>to<br>45 | 45<br>to<br>55 | 55<br>to<br>65 | 65<br>and<br>up | Total. | Total<br>M.&F. |
|---------------|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|--------|----------------|
| 1923 ... M. { | 18           | 116          | 139           | 107            | 79             | 35             | 46             | 23             | 15             | 15             | 7               | 600    | } 1219         |
| ... F. {      | 14           | 105          | 113           | 108            | 73             | 61             | 64             | 32             | 30             | 14             | 5               | 619    |                |
| 1924 ... M. { | 19           | 125          | 99            | 94             | 98             | 36             | 45             | 28             | 17             | 12             | 3               | 576    | } 1158         |
| ... F. {      | 6            | 104          | 88            | 99             | 84             | 56             | 72             | 31             | 18             | 11             | 13              | 582    |                |
| 1925 ... M. { | 18           | 114          | 113           | 77             | 60             | 38             | 54             | 27             | 16             | 12             | 5               | 534    | } 1076         |
| ... F. {      | 10           | 94           | 90            | 95             | 82             | 43             | 60             | 23             | 18             | 11             | 6               | 542    |                |
| 1926 ... M. { | 11           | 93           | 103           | 77             | 79             | 31             | 36             | 33             | 17             | 7              | 3               | 490    | } 994          |
| ... F. {      | 19           | 85           | 103           | 54             | 68             | 58             | 54             | 35             | 17             | 6              | 5               | 504    |                |
| 1927 ... M. { | 13           | 110          | 138           | 90             | 68             | 41             | 41             | 19             | 13             | 5              | 9               | 547    | } 1096         |
| ... F. {      | 16           | 85           | 96            | 88             | 62             | 49             | 81             | 35             | 20             | 11             | 6               | 549    |                |
| 1928 ... M. { | 17           | 94           | 120           | 69             | 63             | 43             | 40             | 16             | 16             | 19             | 7               | 590    | } 1008         |
| ... F. {      | 13           | 73           | 105           | 73             | 58             | 67             | 52             | 30             | 23             | 8              | 6               | 508    |                |
| 1929 ... M. { | 17           | 104          | 103           | 70             | 55             | 40             | 40             | 23             | 16             | 7              | 5               | 480    | } 957          |
| ... F. {      | 3            | 72           | 94            | 53             | 59             | 51             | 66             | 36             | 23             | 16             | 4               | 477    |                |
| 1930 ... M. { | 7            | 86           | 111           | 75             | 69             | 28             | 47             | 19             | 14             | 13             | 7               | 476    | } 1037         |
| ... F. {      | 12           | 75           | 106           | 82             | 63             | 67             | 73             | 36             | 30             | 14             | 3               | 561    |                |
| 1931 ... M. { | 13           | 71           | 82            | 68             | 63             | 36             | 43             | 18             | 21             | 11             | 7               | 433    | } 911          |
| ... F. {      | 8            | 57           | 82            | 65             | 72             | 60             | 60             | 39             | 17             | 12             | 6               | 478    |                |
| 1932 ... M. { | 8            | 68           | 78            | 56             | 41             | 42             | 38             | 21             | 22             | 17             | 6               | 397    | } 870          |
| ... F. {      | 7            | 46           | 90            | 73             | 66             | 56             | 68             | 26             | 20             | 15             | 6               | 473    |                |
| 1933 ... M. { | 10           | 101          | 82            | 45             | 38             | 37             | 44             | 27             | 11             | 13             | 5               | 413    | } *831         |
| ... F. {      | 1            | 65           | 70            | 72             | 44             | 40             | 66             | 34             | 12             | 6              | 8               | 418    |                |

\* See footnote \* on Table 7 page 202.

Public Health Act, 1925.—As far as the district reports show, it was not necessary in 1933 to put into operation Section 62 for the compulsory removal of any case of pulmonary tuberculosis to hospital.

COUNTY TUBERCULOSIS SCHEME.—The administration of the County Council's scheme for the diagnosis and treatment of tuberculosis is in the hands of the County Tuberculosis Committee, and full details of every section of the work are given in Dr. Cox's Annual Report.



TABLE 7.—SUMMARY OF NOTIFICATIONS OF PULMONARY AND OTHER FORMS OF TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY AREA; AND TABLE 8—ANALYSIS OF THE NOTIFICATIONS ON SCHEDULE A (EXCLUDING DUPLICATES) RECEIVED DURING THE FIFTY-TWO WEEKS ENDED 30TH DECEMBER, 1933.

(Collated from the Weekly Returns of District Medical Officers of Health).

| PULMONARY.                                |                   |             |                   |                     |        |                   |     |      |    | NON-PULMONARY. |     |     |     |      |    |            |     |                               |                 |                 |     |             |   |    |             |                    |     |                    |     | Total Pulmonary and Non-pulmonary. | Total Notifications (i.e. Non-cases previously notified). |         |           |             |                          |                               |                     |                        |               |           |           |           |                |        |
|-------------------------------------------|-------------------|-------------|-------------------|---------------------|--------|-------------------|-----|------|----|----------------|-----|-----|-----|------|----|------------|-----|-------------------------------|-----------------|-----------------|-----|-------------|---|----|-------------|--------------------|-----|--------------------|-----|------------------------------------|-----------------------------------------------------------|---------|-----------|-------------|--------------------------|-------------------------------|---------------------|------------------------|---------------|-----------|-----------|-----------|----------------|--------|
| Lungs only.                               | Lungs and Larynx. | Laryngitis. | Bronchial Glands. | Mediastinal Glands. | Total. | JOINTS AND BONES. |     |      |    |                |     |     |     |      |    | ABDOMINAL. |     |                               | GENITO-URINARY. |                 |     |             |   |    |             | PERIPHERAL GLANDS. |     |                    |     |                                    |                                                           |         |           |             |                          |                               |                     |                        |               |           |           |           |                |        |
|                                           |                   |             |                   |                     |        | Trunk.            |     | Arm. |    |                |     |     |     | Leg. |    |            |     | Two or more different joints. |                 | Not Classified. |     | Intestines. |   |    | Peritonæum. |                    |     | Mesenteric Glands. |     | Bladder.                           | Fall. Tube.                                               | Kidney. | Prostate. | Suprarenal. | Testicle and Epididymis. | Not Classified (Two or more). | Meningitis (Brain). | Miliary (Generalised). | SKIN (Lupus). | Axillary. | Cervical. | Inguinal. | MISCELLANEOUS. | Total. |
| Thirteen weeks ended 1st April, 1933      | 417               | 4           | 2                 | 1                   | ...    | 424               | ... | 2    | 9  | 1              | ... | 1   | 4   | ...  | 6  | 10         | ... | 4                             | 1               | 1               | 4   | 1           | 2 | 8  | 30          | 5                  | 1   | 2                  | 5   | 1                                  | ...                                                       | 1       | ...       | 15          | 2                        | 11                            | 2                   | 93                     | ...           | 2         | 224       | 648       | 710            |        |
| Thirteen weeks ended 1st July, 1932       | 441               | 5           | 4                 | ...                 | 1      | 451               | ... | 2    | 18 | ...            | 1   | 1   | ... | 3    | 17 | ...        | 8   | 2                             | ...             | 8               | 3   | ...         | 1 | 29 | 5           | ...                | 3   | ...                | ... | ...                                | ...                                                       | ...     | 13        | 4           | 4                        | 117                           | 2                   | 9                      | 254           | 705       | 787       |           |                |        |
| Thirteen weeks ended 30th September, 1933 | 343               | 2           | 1                 | ...                 | 1      | 347               | ... | 1    | 14 | ...            | ... | ... | ... | 2    | 10 | 1          | 9   | ...                           | ...             | 5               | 3   | ...         | 6 | 24 | 8           | 1                  | ... | 1                  | ... | ...                                | 2                                                         | 1       | 14        | 2           | 5                        | ...                           | 74                  | ...                    | 3             | 186       | 533       | 591       |                |        |
| Thirteen weeks ended 30th December, 1933  | 277               | 1           | 1                 | ...                 | ...    | 279               | ... | 1    | 15 | 1              | ... | ... | ... | 5    | 13 | 1          | 3   | ...                           | ...             | 1               | ... | ...         | 2 | 14 | 7           | 3                  | 1   | 1                  | ... | ...                                | 5                                                         | 1       | 10        | 1           | 10                       | 2                             | 66                  | 2                      | 2             | 167       | 446       | 521       |                |        |
| Total                                     | 1478              | 12          | 8                 | 1                   | 2      | 1501              | ... | 6    | 56 | 2              | ... | 5   | ... | ...  | 16 | 50         | 2   | 24                            | 3               | 1               | 18  | 7           | 2 | 17 | 97          | 25                 | 5   | 3                  | 10  | 1                                  | ...                                                       | 8       | 2         | 52          | 9                        | 30                            | 8                   | 350                    | 4             | 16        | *831      | *2332     | 2609           |        |

| NOTIFICATIONS ON SCHEDULE A—excluding duplicates. |               |               |                |                 |                 |                 |                 |                 |                 |                 |                         |                   |                |               |                |                 |                 |                 |                 |                 |                 |                 |                                                       |            |                         | Number of Cases notified on Form I.<br>(Admissions). |                                             | Number of<br>Cases<br>notified on<br>Form II.<br>(Discharges<br>from<br>Institutions). |      |
|---------------------------------------------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------------|-------------------|----------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------------------------------------------|------------|-------------------------|------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------|------|
| PULMONARY.                                        |               |               |                |                 |                 |                 |                 |                 |                 |                 |                         |                   | NON-PULMONARY. |               |                |                 |                 |                 |                 |                 |                 |                 | Public Assistance<br>Hospitals<br>and<br>Infirmaries. | Sanatoria. |                         |                                                      |                                             |                                                                                        |      |
| Years.                                            | 0<br>to<br>1. | 1<br>to<br>5. | 5<br>to<br>10. | 10<br>to<br>15. | 15<br>to<br>20. | 20<br>to<br>25. | 25<br>to<br>35. | 35<br>to<br>45. | 45<br>to<br>55. | 55<br>to<br>65. | 65<br>to<br>up-<br>wds. | TOTAL.<br>M. & F. | 0<br>to<br>1.  | 1<br>to<br>5. | 5<br>to<br>10. | 10<br>to<br>15. | 15<br>to<br>20. | 20<br>to<br>25. | 25<br>to<br>35. | 35<br>to<br>45. | 45<br>to<br>55. | 55<br>to<br>65. |                                                       |            | 65<br>to<br>up-<br>wds. | TOTAL.<br>M. & F.                                    | Total<br>Pulmonary<br>and<br>Non-Pulmonary. |                                                                                        |      |
| thirteen weeks ended<br>1st April, 1933           | {<br>M.<br>F. | 1<br>...      | 2<br>1         | 8<br>2          | 6<br>8          | 18<br>21        | 31<br>27        | 62<br>54        | 52<br>23        | 46<br>16        | 27<br>6                 | 7<br>6            | 260<br>164     | {<br>424      | 4<br>1         | 31<br>18        | 22<br>21        | 13<br>17        | 5<br>12         | 10<br>15        | 9<br>10         | 2<br>4          | 2<br>1                                                | 1<br>3     | 109<br>115              | {<br>224                                             | 648                                         | 298                                                                                    | 306  |
| thirteen weeks ended<br>1st July, 1933            | {<br>M.<br>F. | ...           | ...            | 4<br>7          | 9<br>9          | 19<br>26        | 31<br>29        | 58<br>67        | 55<br>35        | 42<br>18        | 23<br>9                 | 3<br>7            | 214<br>207     | {<br>451      | 1<br>...       | 31<br>19        | 28<br>22        | 14<br>23        | 19<br>10        | 11<br>7         | 8<br>26         | 3<br>10         | 3<br>3                                                | 1<br>2     | 132<br>122              | {<br>251                                             | 705                                         | 369                                                                                    | 313  |
| thirteen weeks ended<br>30th September, 1933      | {<br>M.<br>F. | 1<br>...      | 1<br>...       | 2<br>1          | 2<br>3          | 20<br>29        | 10<br>23        | 36<br>49        | 45<br>31        | 38<br>15        | 21<br>5                 | 11<br>4           | 187<br>160     | {<br>347      | 3<br>...       | 19<br>18        | 13<br>13        | 9<br>16         | 9<br>16         | 6<br>13         | 7<br>8          | 3<br>2          | 6<br>2                                                | 2<br>1     | 84<br>102               | {<br>186                                             | 533                                         | 339                                                                                    | 339  |
| thirteen weeks ended<br>30th December, 1933       | {<br>M.<br>F. | ...           | 2<br>3         | 2<br>2          | 2<br>6          | 13<br>10        | 12<br>26        | 31<br>38        | 26<br>16        | 35<br>16        | 16<br>9                 | 6<br>5            | 148<br>131     | {<br>279      | 2<br>...       | 20<br>10        | 19<br>14        | 9<br>16         | 5<br>6          | 10<br>11        | 3<br>6          | 3<br>3          | 4<br>3                                                | 1<br>2     | 88<br>79                | {<br>167                                             | 446                                         | 303                                                                                    | 301  |
| Total ...                                         | {<br>M.<br>F. | 2<br>4        | 5<br>12        | 16<br>26        | 19<br>26        | 70<br>86        | 48<br>105       | 190<br>208      | 178<br>105      | 161<br>65       | 87<br>29                | 27<br>22          | 839<br>662     | {<br>*1501    | 10<br>1        | 101<br>65       | 82<br>70        | 45<br>72        | 38<br>44        | 37<br>40        | 44<br>66        | 11<br>19        | 13<br>6                                               | 5<br>8     | 413<br>418              | {<br>*831                                            | *2332                                       | 1200                                                                                   | 1200 |

\* Includes 99 cases (48 pulmonary and 51 non-pulmonary) in which (at 30th June, 1934), the notifications have been withdrawn where the diagnosis was subsequently found to be incorrect. See note (\*) on page 200.





**The Public Health (Venereal Diseases) Regulations, 1916.**—COUNTY COUNCIL SCHEME. The County Council scheme for the diagnosis and treatment of venereal diseases, which was put into operation in 1916, has been fully maintained during the year under report.

The details of the County scheme were set out in the report for 1925. A revised print is available.

**LABORATORY FACILITIES.**—The examinations of specimens from cases or suspected cases are carried out, by arrangement, at the following laboratories :—

MANCHESTER ... The University of Manchester, Public Health Laboratory, York Place, Oxford Road (Prof. Maitland, Director).

LIVERPOOL ... The University of Liverpool, City Laboratories and School of Hygiene, Mount Pleasant (Prof. Beattie).

BURNLEY ... County Borough of Burnley Public Health Laboratory, Victoria Hospital (Dr. A. H. Priestley).

ASHTON-UNDER-LYNE ... The Pathological Laboratory, Ashton-under-Lyne and District Infirmary (Dr. A. W. Laing).

PRESTON ... The Pathological Laboratory of the Preston and County of Lancaster Royal Infirmary (Dr. F. B. Smith).

The outfits supplied to medical practitioners during 1933 were as follow :—

| Wassermann<br>test. | Detection of<br>Spirochæta<br>pallida. | Detection of<br>Gonococci. | Total. |
|---------------------|----------------------------------------|----------------------------|--------|
| 2,537               | 5                                      | 156                        | 2,698  |

**TREATMENT CENTRES.**—The County Council have arrangements with the following 25 Institutions for the free treatment of patients residing in the County area. Changes have recently taken place in the Liverpool area by which the David Lewis Northern and the Stanley hospitals have ceased to be used as clinics under the venereal diseases scheme, and new clinics under the scheme have been established at the Seamen's Dispensary and the Mill Road Infirmary. The Royal Southern Hospital will cease to be used for this purpose at the end of 1934. On the 11th December, 1933, a municipal clinic attached to the Health Department was opened at Rochdale in lieu of the clinic previously held at the Infirmary. The list below is corrected to August, 1934 :—

| Treatment Centre.                                                                                                         | Days and Hours of Out-Patient Clinic.                                                    |                                          |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------|
|                                                                                                                           | MALES.                                                                                   | FEMALES.                                 |
| ASHTON-UNDER-LYNE District Infirmary, Darnton Road<br><i>Medical Officers :—</i><br>James R. Robertson<br>Margaret Gorman | Wednesday, 3—4 p.m.<br>Thursday, 6—7.30 p.m.                                             | Monday, 6—7 p.m.<br>Wednesday, 3—4 p.m.  |
|                                                                                                                           | Irrigation :—<br>For Gonorrhœa cases, Monday to Friday, 6.30—7.30 p.m.                   |                                          |
| BARROW-IN-FURNESS North Lonsdale Hospital, School Street<br><i>Medical Officers :—</i><br>J. Gray<br>J. R. Turner         | Wednesday, 10.30 a.m. and 7.30 p.m.<br>Saturday, 10.30 a.m.                              | Tuesday, 7.30 p.m.<br>Friday, 10.30 a.m. |
|                                                                                                                           | Irrigation :—<br>Daily 6—7 p.m.<br>Apprehensive cases present themselves at the Clinics. |                                          |
| BLACKBURN and East Lancashire Royal Infirmary<br><i>Medical Officers :—</i><br>W. Cran Duthie<br>Dorothea I. Baird        | Tuesday, 5 p.m.<br>Friday, 7.30 p.m.                                                     | Monday, 5.30 p.m.<br>Thursday, 6 p.m.    |
|                                                                                                                           | N.B.—New patients should present themselves 15 minutes before above hours.               |                                          |

## Treatment Centre.

## Days and Hours of Out-Patient Clinic.

BLACKPOOL Victoria Hospital,  
Whitegate Drive  
*Medical Officers :—*  
G. W. Murray  
I. Milne

MALES.  
Monday and Thursday,  
4.45—6.30 p.m.  
Wednesday and Satur-  
day, 11 a.m.—12.30  
p.m.

FEMALES.  
Tuesday, 4.45—6.30 p.m.  
Friday, 11 a.m.—12.30  
p.m.

BOLTON Public Health Department  
Clinic, Howell Croft North  
*Medical Officers :—*  
D. A. Woodeson  
Mary E. Boullen  
J. Litt

Monday, Wednesday, and  
Friday, 6 p.m.  
Irrigation :—  
Monday, Wednesday and  
Friday, 10 a.m. and 6  
p.m.  
Tuesday, 7 p.m.  
Thursday, 10 a.m.

Thursday, 6 p.m.  
Saturday, 10 a.m.  
Monday, 2.30 p.m.  
Tuesday, 11 a.m.  
Wednesday, 2.30 p.m.  
Friday, 2.30 p.m.

Cases unable to attend at above times can be seen  
any morning between 9 a.m. and 12 noon.

BOOTLE General Hospital, Derby Road  
*Medical Officers :—*  
W. L. Webb  
Ruth Nicholson

Monday, 5 p.m.  
Tuesday, Wednesday,  
and Friday, 6.30 p.m.

Wednesday, 12 noon.  
Thursday, 5 p.m.

BURNLEY Victoria Hospital  
*Medical Officer :—*  
Arthur Henry Priestley

Monday, 10—11 a.m. and  
5.30—6.30 p.m.  
Thursday, 5.30—6.30 p.m.  
New cases seen any day at 10 a.m.

Friday, 11 a.m.—12 noon  
and 5.30—6.30 p.m.

BURY Dispensary, The Wylde  
*Medical Officer :—*  
John Holker

Friday, 6.30 p.m.  
Irrigation :  
Monday to Friday, 6.30  
p.m., except Tuesday,  
8.30 p.m.

Tuesday, 6.30 p.m.

LIVERPOOL Royal Infirmary,  
Pembroke Place  
*Medical Officer :—*  
A. O. Ross

Monday, 10 a.m.—1 p.m. ;  
5.30—6.30 p.m.  
Tuesday, 10 a.m.—1 p.m.  
Wednesday, 10 a.m.—1  
p.m. ; 5.30—6.30 p.m.  
Thursday, 5—6 p.m.  
Friday, 10 a.m.—1 p.m. ;  
7—8 p.m.  
Saturday, by arrangement  
Continuation Treatment :—  
Mon., Wed., Fri., 9.30  
a.m.—8 p.m.  
Tuesday, 9.30 a.m.—  
4.30 p.m.  
Thursday, 9.30—11 a.m. ;  
2—8 p.m.  
Saturday, 9.30 a.m.—  
1 p.m.

Monday, 2 p.m.  
Tuesday, 5.30—6.30 p.m.  
Wednesday, 2 p.m.  
Thursday, 12 noon—1 p.m.  
Friday, 2 p.m.

\*LIVERPOOL Royal Southern Hospital,  
Caryl Street  
*Medical Officers :—*  
Arthur A. Fitch  
G. Vincent Hall  
Constance M. Tinkler

New Patients :—  
Tuesday and Thursday,  
4.30 p.m.  
Saturday, 1 p.m.  
Continuation Treatment :—  
Daily, 5 p.m. (except  
Friday and Sunday).  
Saturday, 1 p.m.

Friday, 5 p.m.  
Daily (except Saturday  
and Sunday) 2 p.m.  
Sat.—by arrangement.  
Daily, 5 p.m. (except  
Sunday).  
Saturday, 1 p.m.

\* Will cease to provide treatment under the venereal diseases scheme at the end of the year 1934.



| Treatment Centre.                                                                                                                                    |  | Days and Hours of Out-Patient Clinic.                                 |                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------------------------------------------------------|
|                                                                                                                                                      |  | MALES.                                                                | FEMALES.                                                |
| <b>LIVERPOOL</b> Scamen's Dispensary,<br>Paradise Street.                                                                                            |  | Daily (except Saturday<br>and Sunday) 9.30 a.m.<br>—1 p.m.; 3—8 p.m.  | —                                                       |
| <i>Medical Officers :—</i><br>A. O. Ross<br>A. A. Fitch<br>E. T. Baker-Bates                                                                         |  | Saturday, 9.30 a.m.—1<br>p.m.                                         | —                                                       |
|                                                                                                                                                      |  | Continuation Treatment :—                                             |                                                         |
|                                                                                                                                                      |  | Daily (except Saturday<br>and Sunday) 9.30 a.m.<br>—1 p.m.; 3—8 p.m.  | —                                                       |
| <b>LIVERPOOL</b> Mill Road Infirmary                                                                                                                 |  | Daily (except Sunday)<br>10 a.m.—1 p.m.; 6—<br>8 p.m.                 | Daily (except Sunday)<br>2—4 p.m.; 6—8 p.m.             |
| <i>Medical Officers :—</i><br>A. O. Ross<br>E. E. Prebble<br>A. R. Graham<br>Mary Masterton                                                          |  | Continuation Treatment :—                                             |                                                         |
|                                                                                                                                                      |  | Daily (except Saturday<br>and Sunday) 10 a.m.—<br>1 p.m.; 5.30—8 p.m. | Daily (except Sunday)<br>2—4 p.m.; 6—8 p.m.             |
|                                                                                                                                                      |  | Saturday 10 a.m.—1 p.m.;<br>6—8 p.m.                                  |                                                         |
| <b>MANCHESTER</b> Royal Infirmary, Nelson<br>Street, Oxford Road                                                                                     |  | Syphilis :—                                                           |                                                         |
| <i>Medical Officers :—</i><br>P. B. Mumford<br>G. Whitehead                                                                                          |  | Thursday, 6—7.30 p.m.                                                 | Thursday, 11 a.m. (also<br>for children).               |
|                                                                                                                                                      |  | Diseases of the Genito-Urinary Organs :—                              |                                                         |
|                                                                                                                                                      |  | Wednesday, 6—7.30 p.m.                                                | Wednesday, 11 a.m. (also<br>for children).              |
|                                                                                                                                                      |  | Syphilis and Diseases of the Genito-Urinary Organs :—                 |                                                         |
|                                                                                                                                                      |  | Monday, 6 p.m.                                                        |                                                         |
| <b>MANCHESTER</b> St. Luke's Hospital,<br>Duke Street, Liverpool Road                                                                                |  | Monday, Tuesday,<br>Thursday, Friday,<br>5—7 p.m.                     |                                                         |
| <i>Medical Officers :—</i><br>W. J. S. Reid<br>Eliz. C. Byrd<br>E. D'Arcy McCrea<br>L. Maddocks<br>A. R. Somerford                                   |  | Wednesday, 5—7 p.m.<br>Friday, 11 a.m.—1 p.m.                         |                                                         |
| <i>Pathologist :—</i><br>A. F. C. Davey                                                                                                              |  | Irrigation and Intermediate Treatment :                               |                                                         |
| <i>Anaesthetist :—</i><br>Jas. Sneddon                                                                                                               |  | Daily (Saturday and<br>Sunday excepted),<br>9 a.m.—7 p.m.             | Daily by arrangement<br>with Matron (except<br>Sunday). |
|                                                                                                                                                      |  | Sats. 9 a.m.—1 p.m.                                                   |                                                         |
|                                                                                                                                                      |  | Sun. 10 a.m.—12 noon.                                                 |                                                         |
| <b>MANCHESTER AND SALFORD</b><br>Hospital for Skin Diseases, Quay<br>Street, Deansgate (Syphilis and Skin<br>Diseases only treated at this Hospital) |  | Daily (Sunday excepted) 9—11 a.m.                                     |                                                         |
| <i>Medical Officers :—</i><br>L. Savatard<br>W. Dyson<br>R. Gibson<br>Marianne Peach<br>P. B. Mumford<br>A. R. Somerford                             |  |                                                                       |                                                         |
| <b>MANCHESTER</b> St. Mary's Hospitals,<br>(Whitworth Street West Branch)<br>Oxford Street                                                           |  | Monday, Wednesday,<br>Thursday, and Friday,<br>9—10.30 a.m.           |                                                         |
| <i>Medical Officers :—</i><br>W. R. Addis<br>K. V. Bailey                                                                                            |  | Tuesday, 7—8 p.m.<br>Thursday, 5—7 p.m.                               |                                                         |

## Treatment Centre.

## Days and Hours of Out-Patient Clinic.

|                                                                                                                                                                                         | MALES.                                                                                                                                                                                                | FEMALES.                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MANCHESTER</b> Aneoats Hospital, Mill Street, Aneoats<br><i>Medical Officers :—</i><br>W. J. S. Reid<br>A. R. Somerford<br>L. Anderson Wilson<br>Gordon Whitehead<br>S. E. Critchley | Wednesday and Saturday<br>5.30—7 p.m.<br><br>Daily, 12.30—7.30 p.m.<br>except Sundays.                                                                                                                | Wednesday, 11.30 a.m.—1 p.m.<br><br>Irrigation :—<br><br>Monday, 7.30 p.m.<br>Tuesday, Wednesday,<br>Thursday, Friday and<br>Saturday, 6 p.m.<br><br>Irrigation :—<br>Monday to Friday 9.30 a.m.—8.30 p.m.<br>Saturday, 9.30 a.m.—12.30 p.m.<br>Sunday, 10 a.m.—12 noon. |
| <b>OLDHAM</b> Royal Infirmary, Union Street West<br><i>Medical Officers :—</i><br>R. I. Poston<br>J. G. Stewart<br>J. Tehan                                                             | Syphilis :—<br>Tuesday, 7.30 p.m.<br>Gonorrhoea :—<br>Wednesday, 7.30 p.m.<br><br>Irrigation :—<br>Monday to Friday 9.30 a.m.—8.30 p.m.<br>Saturday, 9.30 a.m.—12.30 p.m.<br>Sunday, 10 a.m.—12 noon. | Monday, 7.30 p.m.<br>Tuesday, Wednesday,<br>Thursday, Friday and<br>Saturday, 6 p.m.<br><br>Irrigation :—<br>Monday to Friday 9.30 a.m.—8.30 p.m.<br>Saturday, 9.30 a.m.—12.30 p.m.<br>Sunday, 10 a.m.—12 noon.                                                          |
| <b>PRESTON</b> Royal Infirmary, Deepdale Road<br><i>Medical Officer :—</i><br>W. H. Pimblett                                                                                            | Wednesday and Friday,<br>4.30—7.30 p.m.<br><br>Daily (except Sunday)<br>8.30—9.30 a.m. and<br>5—7 p.m.                                                                                                | Tuesday, 4.30—7 p.m.<br>Thursday, 4.30—6.30 p.m.<br><br>Intermediate Treatment :—<br>Saturday, 2—4 p.m. and<br>by arrangement.<br>Tuesday and Thursday, at<br>clinic hours.                                                                                              |
| <b>ROCHDALE</b> Municipal Clinie.<br>Entrance :—<br>Males—20, Baillie Street,<br>Females—2, Alfred Street.<br><br><i>Medical Officers :—</i><br>A. H. Heyworth<br>E. Williams           | Monday, 5.30—7.30 p.m.<br>Tuesday, 3—5 p.m.<br>Thursday, 5—7 p.m.<br><br>Monday to Friday, 9 a.m.—7.30 p.m.<br>Saturday, 9 a.m.—12 noon,<br>and 6—8 p.m.<br>Sunday, 9—10 a.m. only.                   | Medical :—<br>Tuesday, 9.30—11.30 a.m.<br>Wednesday, 5.30—7.30 p.m.<br><br>Intermediate Treatment :—<br>Daily by arrangement<br>through the Medical<br>Clinics.                                                                                                          |
| <b>SALFORD</b> Municipal Clinie, 153-155, Regent Road<br><i>Medical Officers :—</i><br>E. T. Burke<br>R. Marinkovitch<br>W. E. Orchard<br>F. M. Blades                                  | Sunday, 9.30 a.m.—12.30 p.m. ; 3.30—6.30 p.m.<br>Monday to Friday, 8.30 a.m.—8.30 p.m.<br>Saturday, 8.30 a.m.—12.30 p.m. ; 7—8.30 p.m.                                                                |                                                                                                                                                                                                                                                                          |
| <b>SOUTHPORT</b> Infirmary, Pilkington Road<br><i>Medical Officer :—</i><br>H. Bardsley                                                                                                 | Monday and Thursday,<br>5.30—7.30 p.m.<br><br>8.30 a.m.—7.30 p.m.                                                                                                                                     | Tuesday, 1.30—4.30 p.m.<br><br>Daily Treatment :—<br>10 a.m.—8 p.m.                                                                                                                                                                                                      |
| <b>ST. HELENS</b> Dispensary, 18, Cloughton Street<br><i>Medical Officers :—</i><br>Frank Hauxwell<br>William T. Donavon<br>Enid M. Hughes                                              | Monday, 5.30—7 p.m.<br><br>Disinfection and Irrigation :—<br>Monday to Friday, 9.30 a.m.—5 p.m.<br>Saturday, 9.30 a.m.—12 noon.                                                                       | Wednesday, 5.30—7 p.m.<br>(also for children).                                                                                                                                                                                                                           |
| <b>WARRINGTON</b> Infirmary and Dispensary, Kendrick Street. Out-patient Clinic—Beaumont Street entrance<br><i>Medical Officer—</i><br>E. Pigott                                        | Tuesday, 4 p.m.<br>Friday, 6 p.m.                                                                                                                                                                     | Tuesday and Friday,<br>5 p.m.                                                                                                                                                                                                                                            |
| <b>WIGAN</b> Royal Albert Edward Infirmary, Wigan Lane<br><i>Medical Officer—</i><br>H. Bardsley.                                                                                       | Tuesday and Friday,<br>4—6 p.m.                                                                                                                                                                       | Wednesday,<br>2.30—4.30 p.m.                                                                                                                                                                                                                                             |



WORK CARRIED OUT AT THE TREATMENT CENTRES DURING THE YEAR 1933.—The following table giving the attendances during the year 1933 is compiled from the Annual Returns, Form V.D.(R), of the Medical Officers of Treatment Centres. The table also gives the number of attendances at the Centres for the five years 1928–1932.

|                                                   |     |     |     | Number of County Residents attending for the <i>first</i> time, and found to be suffering from :— |              |             |                                 | Total Number of Attendances of County Residents at Out-patient Clinic. | Aggregate Number of In-patient days. | Number of Doses of Arsenobenzene Compounds. |
|---------------------------------------------------|-----|-----|-----|---------------------------------------------------------------------------------------------------|--------------|-------------|---------------------------------|------------------------------------------------------------------------|--------------------------------------|---------------------------------------------|
|                                                   |     |     |     | Syphilis.                                                                                         | Soft Chanere | Gonorrhœa.  | Conditions other than Venereal. |                                                                        |                                      |                                             |
| Year 1928                                         | ... | ... | ... | 594                                                                                               | 20           | 1000        | 596                             | 50843                                                                  | 1659                                 | 7593                                        |
| Year 1929                                         | ... | ... | ... | 595                                                                                               | 26           | 1025        | 651                             | 65484                                                                  | 1395                                 | 9226                                        |
| Year 1930                                         | ... | ... | ... | 523                                                                                               | 16           | 1005        | 704                             | 66068                                                                  | 2037                                 | 9511                                        |
| Year 1931                                         | ... | ... | ... | 519                                                                                               | 14           | 909         | 902                             | 81296                                                                  | 1164                                 | 10448                                       |
| Year 1932                                         | ... | ... | ... | 554                                                                                               | 9            | 1141        | 985                             | 82691                                                                  | 2340                                 | 11883                                       |
| <b>Year 1933 :—</b>                               |     |     |     |                                                                                                   |              |             |                                 |                                                                        |                                      |                                             |
| Ashton-under-Lyne District Infirmary              | ... | ... | ... | 33                                                                                                | —            | 43          | 18                              | 4330                                                                   | 53                                   | 526                                         |
| Barrow-in-Furness North Lonsdale Hospital         | ... | ... | ... | 4                                                                                                 | —            | 6           | 2                               | 227                                                                    | —                                    | 46                                          |
| Blackburn and East Lancashire Royal Infirmary     | ... | ... | ... | 36                                                                                                | —            | 112         | 176                             | 7849                                                                   | 203                                  | 907                                         |
| Blackpool Victoria Hospital                       | ... | ... | ... | 18                                                                                                | —            | 40          | 12                              | 3535                                                                   | 47                                   | 188                                         |
| Bolton Public Health Department Clinic            | ... | ... | ... | 44                                                                                                | —            | 80          | 69                              | 4985                                                                   | —                                    | 800                                         |
| Bootle General Hospital                           | ... | ... | ... | 16                                                                                                | 3            | 32          | 22                              | 4208                                                                   | 261                                  | 403                                         |
| Burnley Victoria Hospital                         | ... | ... | ... | 9                                                                                                 | —            | 58          | 17                              | 1902                                                                   | —                                    | 126                                         |
| Bury Dispensary Clinic                            | ... | ... | ... | 26                                                                                                | 2            | 35          | 26                              | 3113                                                                   | —                                    | 650                                         |
| Liverpool Royal Infirmary                         | ... | ... | ... | 10                                                                                                | —            | 27          | 11                              | 1282                                                                   | —                                    | 148                                         |
| Liverpool David Lewis Northern Hospital           | ... | ... | ... | 4                                                                                                 | —            | 6           | 2                               | 122                                                                    | —                                    | 47                                          |
| Liverpool Royal Southern Hospital                 | ... | ... | ... | 2                                                                                                 | —            | 3           | 2                               | 275                                                                    | 225                                  | 80                                          |
| Liverpool Stanley Hospital                        | ... | ... | ... | 2                                                                                                 | —            | 13          | 1                               | 706                                                                    | —                                    | 33                                          |
| Manchester Ancoats Hospital                       | ... | ... | ... | 20                                                                                                | —            | 17          | 47                              | 1103                                                                   | —                                    | 212                                         |
| Manchester Royal Infirmary                        | ... | ... | ... | 33                                                                                                | —            | 26          | 30                              | 2000                                                                   | 12                                   | 319                                         |
| Manchester St. Luke's Hospital                    | ... | ... | ... | 15                                                                                                | 2            | 50          | 20                              | 3339                                                                   | 193                                  | 191                                         |
| Manchester and Salford Hospital for Skin Diseases | ... | ... | ... | 31                                                                                                | —            | 1           | 23                              | 1476                                                                   | —                                    | 355                                         |
| Manchester St. Mary's Hospitals                   | ... | ... | ... | 4                                                                                                 | —            | 28          | 35                              | 953                                                                    | —                                    | 106                                         |
| Oldham Royal Infirmary                            | ... | ... | ... | 18                                                                                                | —            | 22          | 9                               | 1256                                                                   | 12                                   | 378                                         |
| Preston Royal Infirmary                           | ... | ... | ... | 57                                                                                                | —            | 143         | 34                              | 9122                                                                   | 176                                  | 3021                                        |
| *Rochdale Municipal Clinic                        | ... | ... | ... | 43                                                                                                | —            | 29          | 22                              | 3006                                                                   | —                                    | 1277                                        |
| Salford Municipal Clinic                          | ... | ... | ... | 62                                                                                                | 5            | 177         | 180                             | 20104                                                                  | 292                                  | 1732                                        |
| St. Helens Corporation Hospital                   | ... | ... | ... | 4                                                                                                 | —            | 3           | —                               | 132                                                                    | —                                    | 35                                          |
| Southport Royal Infirmary                         | ... | ... | ... | 5                                                                                                 | —            | 11          | 9                               | 176                                                                    | 115                                  | —                                           |
| Warrington Infirmary                              | ... | ... | ... | 8                                                                                                 | —            | 23          | 1                               | 1856                                                                   | —                                    | 64                                          |
| Wigan Royal Albert Edward Infirmary               | ... | ... | ... | 22                                                                                                | —            | 60          | 64                              | 5374                                                                   | 49                                   | 476                                         |
| Other Institutions treating County residents      | ... | ... | ... | 3                                                                                                 | 2            | 24          | 6                               | 1475                                                                   | —                                    | 63                                          |
| <b>Total for year 1933</b>                        | ... | ... | ... | <b>529</b>                                                                                        | <b>14</b>    | <b>1069</b> | <b>838</b>                      | <b>83911</b>                                                           | <b>1638</b>                          | <b>12183</b>                                |

\* At the Rochdale Infirmary until December 10th, 1933.

The number of *new* cases treated in 1933 was 239 fewer than in the previous year, but there was again an increase in the total number of attendances.

Railway vouchers and bus fares.—During the year under report, 3,168 railway vouchers were provided by the County Public Health Department and a large number of bus fares were refunded to 135 necessitous persons to enable them to attend treatment centres. The expenditure on this item during 1933 was £266 12s. 7d.

ARSENOBENZENE COMPOUNDS.—Under the arrangement for the supply of arsenobenzene compounds to medical practitioners “approved” for this purpose, the following were supplied during 1933 :—

| Total No. of medical practitioners “approved” for supply of these preparations. | No. of doses of Arsenobenzene Compounds supplied to medical practitioners in 1933. |              |               |             |              |              |                |               |                   |                 |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|---------------|-------------|--------------|--------------|----------------|---------------|-------------------|-----------------|
|                                                                                 | Novarsenobillon.                                                                   | Kharsulphan. | Neokharsivan. | Sulphostab. | Sulfarsenol. | Stabilarsan. | Neo-Salvarsan. | Myosalvarsan. | Silver-Salvarsan. | Metarsenobillon |
| 217                                                                             | 138                                                                                | 246          | 130           | 95          | 92           | 129          | 39             | 33            | 22                | 34              |
|                                                                                 |                                                                                    |              |               |             |              |              |                |               |                   | Total.          |
|                                                                                 |                                                                                    |              |               |             |              |              |                |               |                   | 958             |

EDUCATIONAL AND PROPAGANDA WORK.—The statement below shows the approximate number of persons who attended the lectures, film showings, &c., arranged in 1933 by the County Public Health Department. Many of these lectures were solely on venereal diseases subjects; others were on general hygiene and various aspects of public health. Further details of the lectures are given on pages 210 to 212.

|                         | Unillustrated Lectures to— |         |      |                  |        | Illustrated Lectures to— |                               |         | Total. |
|-------------------------|----------------------------|---------|------|------------------|--------|--------------------------|-------------------------------|---------|--------|
|                         | Child Welfare Centres.     | Youths. | Men. | Women and Girls. | Mixed. | Children.                | School Children and Teachers. | Adults. |        |
| Public Health Education | 260                        | ...     | ...  | 408              | 410    | 2,200                    | 10,951                        | 1,838   | 16,067 |
| Social Hygiene          | ...                        | 80      | 200  | 936              | 860    | ...                      | ...                           | 6,660   | 8,736  |
| Total ...               | 260                        | 80      | 200  | *1,344           | 1,270  | 2,200                    | 10,951                        | 8,498   | 24,803 |

\*Includes 3 lectures to midwives.

**Public Health and Social Hygiene Education.**—During the year under report the educational and propaganda work has been continued on lines somewhat similar to previous years. The County Authority has co-operated with numerous organisations and has carried out propaganda on various aspects of social hygiene. Special attention has been devoted to the smaller districts and rural parishes, and the attendances on the whole have been decidedly encouraging.

The organisations addressed included mothers’ unions, juvenile unemployed centres, child welfare centres, co-operative guilds, groups of unemployed men, women, youths and girls, Sunday school teachers, university students, nursing associations, etc.

The lectures on venereal diseases stressed the preventive aspect of the question, and there appeared to be evidence of an increasing health-consciousness and a changing attitude towards publicity and discussion on this subject. After many of the talks, individuals and small groups from the audiences put questions or sought further information. At many of the lectures there was a gratifying attendance of young adults.



The film showings were very popular and there seems to be no doubt that this agent in health propaganda is most valuable. The film "Damaged Lives" was shown commercially in many County districts, including certain areas where County propaganda had been initiated or was contemplated. Some change was thus necessitated in the nature of the County programme, and the next lecture or talk was an attempt to follow up the lesson intended to be conveyed by the film.

The County staff again co-operated with some of the non-County Boroughs at health exhibitions, etc., arranged in connection with their local health week programmes.

Cine-motor tour.—The cine-motor outfit and film equipment of the British Social Hygiene Council was engaged in February and November and toured fourteen County districts.

The County Public Health Department keeps up-to-date a list of public health and general hygiene films, and a stock of lantern slides is available, together with the latest literature, posters, etc. These are at the disposal of local authorities and others. The services of the Organising Lecturer attached to the Public Health Department are also, as far as practicable, available to supplement local efforts.

The material available includes :—

- (A) LANTERN SLIDES—Sets of slides dealing with the production of a clean milk supply, orthopaedic treatment and hospitals in the County area, smallpox, venereal diseases and social hygiene; small selected sets on child welfare centres, school clinics, air and ventilation, flies, &c.
- (B) CINEMATOGRAPH FILMS—A detailed list of films available and suitable for lectures dealing with maternity and child welfare, dental hygiene, the value of a clean milk supply, hospital treatment of children, flies, general hygiene, safety first, venereal diseases and social hygiene, &c.
- (C) POSTERS—Suitable for exhibition illustrating the care of the teeth and general cleanliness, &c., and the dangers of venereal diseases.
- (D) LITERATURE—Supplies of literature are available on clean milk production and the value of milk as a food, dental hygiene, venereal diseases and social hygiene.
- (E) LECTURERS—The Department, in case of any local difficulty, will endeavour to provide a suitable lecturer.

In connection with the educational work by means of film showings, exhibits, etc., opportunity is taken to express the thanks of the Public Health Committee for assistance rendered by loans of films, supplies of literature, etc., by many bodies, such as the British Social Hygiene Council, the Central Council for Health Education, the Dental Board of the United Kingdom, the Health and Cleanliness Council, the Baby Week Council, the British Red Cross Society, the National "Safety First" Association, the National Milk Publicity Council, and others.

Details of the lectures, etc., given in 1933 are set out in the two following statements :—

On Venereal Diseases and Social Hygiene :—

| District.                    | Date.            | Type of audience. | Approx. No. present. | District.                  | Date.           | Type of audience.   | Approx. No. present. |
|------------------------------|------------------|-------------------|----------------------|----------------------------|-----------------|---------------------|----------------------|
| Abram ... ..                 | 1933<br>Sept. 24 | Mixed Adult       | 500*                 | Fleetwood (B) ...          | 1933<br>Oct. 12 | Co-op. Guild        | 100                  |
| Accrington (B) ...           | May 30           | Unemployed Youths | 40                   | Golborne ... ..            | Sept. 21        | Mixed Adult         | 100*                 |
| Do. ... ..                   | June 1           | Do.               | 40                   | Haslingden (B) ...         | Oct. 3          | Co-op. Guild        | 100                  |
| Ashton-under-Lyne (B) ... .. | May 4            | Mothers           | 35                   | Haydock ... ..             | Sept. 14        | Mothers' Fellowship | 100                  |
| Chorley (B) ... ..           | April 4          | Cong. Guild       | 30                   | Horwich ... ..             | Nov. 7          | Adults              | 100*                 |
| Do. ... ..                   | Sept. 24         | Mixed Adult       | 70                   | Lancaster (B) ...          | Jan. 15         | Brotherhood—Mixed   | 100                  |
| Clayton-le-Moors ...         | Jan. 11          | Co-op. Guild      | 100                  | Leigh (B)<br>(Health week) | Feb. 16         | Women               | 100                  |
| Crompton (Shaw) ...          | Feb. 21          | Unemployed        | 130                  | Do. ... ..                 | May 2           | Parents             | 100                  |
| Darwen (B) ... ..            | Jan. 19          | Mothers' Club     | 100                  | Middleton (B) ...          | Feb. 23         | Midwives' Assoc.    | 100                  |
| Do. (Spring Vale)            | Oct. 20          | Women's Group     | 20                   | Do.<br>(Health week)       | Oct. 8          | Adults              | 100*                 |
| Do. ... ..                   | Dec. 7           | Mothers' Club     | 80                   | Do. ... ..                 | Oct. 10         | Do.                 | 100*                 |
| Farnworth ... ..             | April 26         | Mothers' Union    | 40                   | Do. ... ..                 | Oct. 16         | Midwives            | 100                  |

\* Film Lecture.

Venereal Diseases and Social Hygiene—*continued*.

| District.                            | Date            | Type of audience.   | Approx. No. present. | District.                                | Date    | Type of audience. | Approx. No. present. |
|--------------------------------------|-----------------|---------------------|----------------------|------------------------------------------|---------|-------------------|----------------------|
| Walsley (B) ... ..                   | 1933<br>April 6 | Sunday School Union | 40                   | CINE-MOTOR TOURS<br><i>continued.</i>    | 1933    |                   |                      |
| Prescot ... ..                       | Jan. 17         | Mothers' Class      | 60-70                | Formby ... ..                            | Nov. 21 | Adults            | 200                  |
| Do. ... ..                           | May 10          | Works Meeting       | 40                   | Leyland ... ..                           | Mar. 1  | Women             | 70                   |
| Lowtenstall (B)<br>Waterfoot) ... .. | Oct. 4          | Mothers' Union      | 40                   | Do. ... ..                               | Mar. 1  | Adults            | 70                   |
| Do. ... ..                           | Oct. 15         | Co-op. Guild        | 80                   | Milnrow ... ..                           | Nov. 23 | Women             | 100                  |
| Lynton ... ..                        | Oct. 16         | Do.                 | 100                  | Do. ... ..                               | Nov. 23 | Men               | 200                  |
| Settford (B)<br>Health Week) ... ..  | Mar. 6          | Adults              | 200*                 | Morecambe and<br>Heysham (B) ... ..      | Mar. 4  | Adults            | 150                  |
| Do. ... ..                           | Mar. 7          | Do.                 | 400*                 | Orrell ... ..                            | Feb. 23 | Do.               | 150                  |
| Do. ... ..                           | Mar. 8          | Do.                 | 400*                 | Swinton and Pendle-<br>bury (Pendlebury) | Nov. 27 | Teachers          | 100                  |
| Stoughton ... ..                     | Mar. 28         | Mothers' Union      | 50-60                | Do. ... ..                               | Nov. 27 | Men               | 100                  |
| Wilton-le-Dale<br>Bamber Bridge)     | April 26        | Adults              | 360*                 | Do. ... ..                               | Nov. 28 | Women             | 30                   |
| Do. ... ..                           | May 4           | Mothers' Union      | 40                   | Do. ... ..                               | Nov. 28 | Adults            | 80                   |
| Wisthoughton ... ..                  | Dec. 6          | Social Centre       | 30                   | Upholland ... ..                         | Nov. 22 | Do.               | 200                  |
| Worsley (Walkden)                    | April 27        | Mothers' Class      | 35                   | Wardle ... ..                            | Nov. 24 | Do.               | 50                   |
| Worley (R) (Coppull)                 | Mar. 9          | Guild—Mixed         | 20                   | Widnes (B) ... ..                        | Nov. 29 | Men               | 120                  |
| Worley C.B.<br>by request) ... ..    | Aug. 29         | Women's Guild       | 100                  | Do. ... ..                               | Nov. 29 | Adults            | 200                  |
| Worley C.B.<br>by request) ... ..    | Mar. 22         | Parent's Union      | 150                  | Do. ... ..                               | Dec. 1  | Women             | 30                   |
| CINE-MOTOR TOURS :                   |                 |                     |                      | Do. ... ..                               | Dec. 1  | Adults            | 50                   |
| Worley ... ..                        | Mar. 3          | Adults              | 50                   | Preston (R)<br>(Goosnargh) ... ..        | Nov. 20 | Do.               | 100                  |
| Worley ... ..                        | Mar. 2          | Do.                 | 200                  | West Lancashire<br>(R) (Banks) ... ..    | Feb. 27 | Do.               | 200                  |

\* Film Lecture.

## On General Public Health and Hygienic subjects :—

| District.                | Date.            | Type of audience.                                  | Approx. No. present. | District.                             | Date.           | Type of audience.                                  | Approx. No. present. |
|--------------------------|------------------|----------------------------------------------------|----------------------|---------------------------------------|-----------------|----------------------------------------------------|----------------------|
| Worley ... ..            | 1933<br>Sept. 22 | School Children<br>(Special films)                 | 500*                 | Haydock ... ..                        | 1933<br>June 21 | Child Welfare Centre                               | 40                   |
| Worley (B)               | Mar. 29          | Girls' Guild                                       | 30                   | Do. ... ..                            | Oct. 2          | Mixed                                              | 100                  |
| Worley-in-Makerfield     | May 3            | School Children and<br>Teachers<br>(Special films) | 900*                 | Lancaster (B) ... ..                  | Mar. 23         | Sisterhood                                         | 30                   |
| Do. ... ..               | May 3            | Do.                                                | 900*                 | Leyland ... ..                        | May 18          | Child Welfare Centre                               | 90                   |
| Do. ... ..               | Oct. 11          | Mothers' Union                                     | 50                   | Longridge ... ..                      | April 28        | School Children,<br>Teachers and<br>Mothers        | 350                  |
| Worley ... ..            | Mar. 14          | Women's Guild                                      | 70                   | Middleton (B) ... ..                  | Mar. 30         | Midwives                                           | 13                   |
| Worley-le-Moors ... ..   | April 4          | Child Welfare Centre                               | 40                   | Ormskirk ... ..                       | Jan. 25         | Townswomen's Guild                                 | 35                   |
| Worley (B) ... ..        | May 16           | Distriet Nursing<br>Association                    | 50                   | Do. (Burscough)                       | Feb. 22         | Guild—Mixed                                        | 30                   |
| Worley (Shaw)            | Oct. 24          | Unemployed                                         | 300†                 | Prescot ... ..                        | May 9           | School Children<br>and Teachers<br>(Special films) | 970*                 |
| Do. ... ..               | Nov. 21          | Do.                                                | 250†                 | Do. ... ..                            | May 10          | Do.                                                | 700*                 |
| Worley ... ..            | Sept. 13         | School Children<br>(Special films)                 | 250*                 | Do. ... ..                            | May 10          | Adults                                             | 150                  |
| Worley ... ..            | Sept. 20         | Do.                                                | 550*                 | Ramsbottom ... ..                     | Jan. 31         | Co-operative Guild                                 | 40                   |
| Worley Harwood ... ..    | Mar. 23          | Mixed                                              | 40†                  | Stretford (B)<br>(Health Week) ... .. | Mar. 9          | Children                                           | 500*                 |
| Do. ... ..               | Dec. 17          | Discussion Class                                   | 60                   | Do. ... ..                            | Mar. 9          | Adults                                             | 150*                 |
| Worley (B)<br>Helmshore) | Oct. 19          | Adults                                             | 100†                 | Do. ... ..                            | Mar. 10         | Children                                           | 800*                 |
|                          |                  |                                                    |                      | Do. ... ..                            | Mar. 10         | Adults                                             | 200*                 |

\* Film Lecture.

† Lantern Lecture.



General Public Health and Hygienic subjects—*continued.*

| District.                                 | Date.            | Type of audience.                   | Approx. No. present. | District.                          | Date.   | Type of audience.              | Approx. No. present. |
|-------------------------------------------|------------------|-------------------------------------|----------------------|------------------------------------|---------|--------------------------------|----------------------|
| Turton (Edgworth)                         | 1933.<br>Jan. 12 | Adults                              | 50*                  | <b>HEALTH EXHIBITION :</b>         |         |                                |                      |
| Tyldesley ... ..                          | Sept. 19         | School Children<br>(Special films)  | 950*                 | Lancaster (R)<br>(Bolton-le-Sands) | Oct. 26 | School Children and<br>Adults. | 155†                 |
| Walton-le-Dale<br>(Bamber Bridge)         | April 25         | School Children and<br>Teachers     | 800                  | Do. ...                            | Oct. 26 | Adults                         | 80†                  |
| Whitefield ... ..                         | June 27          | Child Welfare Centre                | 40                   | Lunesdale (R)<br>(Arkholme) ...    | Oct. 27 | School Children and<br>Adults  | 30†                  |
| Worsley (Walkden)                         | May 25           | Do.                                 | 50                   | Do. ...                            | Oct. 27 | Adults                         | 50†                  |
| Fylde (R) (Wesham)                        | Mar. 9           | Wesham Men's Edu-<br>tional Society | 40-50†               | (Borwick) ...                      | Oct. 30 | School Children and<br>Adults  | 56†                  |
| Do. (Singleton)                           | Mar. 17          | Women's Institute                   | 30                   | Do. ...                            | Oct. 30 | Adults                         | 60                   |
| Lunesdale (R)<br>(Halton) ... ..          | Feb. 13          | Co-operative Guild                  | 30                   | (Caton) ...                        | Oct. 25 | School Children and<br>Adults. | 170†                 |
| Bolton C.B. (Health<br>Week) (by request) | Feb. 16          | Mothers                             | 60                   | Do. ...                            | Oct. 25 | Adults                         | 80                   |
| Do. ... ..                                | Feb. 18          | Do.                                 | 40                   | (Hornby) ...                       | Oct. 24 | School Children and<br>Adults  | 60                   |
| <b>CINE-MOTOR TOURS :</b>                 |                  |                                     |                      | Do. ...                            | Oct. 24 | Adults                         | 50                   |
| Adlington ... ..                          | Mar. 3           | Children                            | 750                  | (Melling) ...                      | Oct. 23 | School Children and<br>Adults  | 30                   |
| Blackrod ... ..                           | Mar. 2           | Do.                                 | 300                  | Do. ...                            | Oct. 23 | Adults                         | 60                   |
| Formby ... ..                             | Nov. 21          | School Children<br>(Special films)  | 350                  | Ulverston (R)<br>(Cartmel) ...     | Nov. 1  | School Children and<br>Adults  | 140                  |
| Huyton-with-Roby                          | Dec. 1           | Do.                                 | 300                  | Do. ...                            | Nov. 1  | Adults                         | 80                   |
| Orrell ... ..                             | Feb. 28          | Children                            | 500                  | (Flookburgh) ...                   | Nov. 2  | School Children and<br>Adults  | 65                   |
| Do. ... ..                                | Feb. 28          | Do.                                 | 500                  | Do. ...                            | Nov. 2  | Adults                         | 100                  |
| Upholland ... ..                          | Nov. 22          | School Children<br>(Special films)  | 350                  | (Hawkshead) ...                    | Nov. 3  | School Children and<br>Adults  | 65                   |
| Do. ... ..                                | Nov. 22          | Do.                                 | 200                  | Do. ...                            | Nov. 3  | Adults                         | 60-70                |
| Wardle ... ..                             | Nov. 24          | Do.                                 | 215                  | (Lindale) ...                      | Oct. 31 | School Children and<br>Adults  | 120†                 |
| Do. ... ..                                | Nov. 24          | Do.                                 | 225                  | Do. ...                            | Oct. 31 | Adults                         | 78                   |
| Preston (R)<br>(Goosnargh) ...            | Nov. 20          | Do.                                 | 130                  |                                    |         |                                |                      |
| (Ribchester)                              | Nov. 20          | Do.                                 | 120                  |                                    |         |                                |                      |
| West Lancs. (R)<br>(Banks) ... ..         | Feb. 27          | Children                            | 150                  |                                    |         |                                |                      |

\* Film Lecture.

† Lantern Lecture.

Under the Public Health Act, 1925, Section 67, local authorities initiated lectures on health subjects in about 24 districts.

**MATERNITY AND CHILD WELFARE.****MIDWIVES ACTS, 1902-1926.**

The County Council is the "Local Supervising Authority" responsible for the administration of the Midwives Acts in the Administrative County area, except in four districts to the Councils of which the powers and duties under these Acts have been delegated under Section 62 of the Local Government Act, 1929.

The four districts referred to are the Boroughs of Darwen, Eccles, Leigh and Stretford. The statistics, etc., given in this section exclude these districts.

The Urban District Council of Swinton and Pendlebury has had the question of delegation under consideration, but the matter has been deferred.

**ROLL OF MIDWIVES.**—The number of certified midwives on the County Register on the 31st December 1933, was 748; at the end of the year 1932 the number was 735.

During the year under report, 65 newly-certified midwives gave notice of their intention to practise in the area in which the County Council is the Local Supervising Authority, and 30 who had previously ceased re-commenced to act. Eighty-two midwives had their names removed from the County Register for the following reasons :—28 left the area, and 54 ceased to practise.

Trained midwives now number 697, or 93·1 per cent. of the total on the County register ; the bonâ-fides or untrained number 51 or 6·9 per cent. Twenty-seven years ago the untrained midwives represented 83 per cent. of the whole.

**RECORDS FROM MIDWIVES.**—The following statement shows the number of copy medical help records received by the County Public Health Department from certified midwives during 1933 :—

## MEDICAL HELP RECORDS.

(1) Cases in which a woman during pregnancy, labour, or lying-in, appeared to be dying or is dead ... —

(2) Pregnancy—

[illegible]

(3) Labour—

[illegible]

(4) Lying-in—

[illegible]

(5) The Child—

[illegible]

As shown above, the copy medical help records received from midwives in the year 1933 numbered 5,083 against 4,943 in 1932, and 5,170 in 1931.

The total number of live births in the County midwives area in 1933 was 21,056, and certified midwives, *as such*, attended 10,034, or 47·6 per cent. of the total live births; in addition midwives were present at 5,692 births in the capacity of nurse.

The copy medical help records detailed above include a number of cases to which a medical practitioner was called *before* the confinement, and a number where medical help was called a second or even a third time to the same patient. Based on the total medical help records and the total number of births attended solely by certified midwives, the percentage of cases in which medical aid was called corresponds to 49·0, but this percentage, to be strictly accurate, must be reduced by the number of records in respect of cases at which a doctor was subsequently present at the confinement, a figure which is not available. In 1932, on the above basis, the percentage was 47·2, 46·2 per cent. in 1931, and 43·2 per cent. in 1930. In the year 1907 the percentage was only 4.



Trained midwives in 1933 attended 9,709 births and called in medical assistance, calculated as indicated in the preceding paragraph, in 49·7 per cent. of their cases; untrained midwives attended 655 cases and medical aid was sought in 39·2 per cent. of these cases.

**PAYMENT OF DOCTORS' FEES.—EMERGENCY CASES.**—Under the Midwives Act, 1918, the number of accounts received in 1933 from medical practitioners called in by certified midwives in cases of emergency as defined by the Central Midwives Board's Rules was 2,989, the amount involved being £4,431 10s. 0d. The total number of occasions on which midwives summoned doctors was 5,083. In the year 1932 doctors' accounts numbered 2,939 out of 4,943 calls, and the amount involved was £4,489 10s. 0d.

**No recovery in Eye Cases.**—As suggested by the Ministry of Health in Circular 617a, the County Council, on the recommendation of the Midwives Act Committee, passed a resolution authorising the Public Health Department to refrain from exercising the power of recovery of the fees paid by the County Council to medical practitioners called in by certified midwives in cases of inflammation of, or discharge from, the eyes of infants. The amount involved in 1933 in respect of 106 cases was £123 18s. 6d.

**STILLBIRTHS.**—The following statement compares the stillbirths reported by midwives in 1933 with the preceding two years, giving the percentage to the total births attended by them:—

| Year.       | No. of Births<br>(live and still)<br>attended<br>by Certified<br>Midwives. | No. of<br>Stillbirths<br>reported by<br>Certified<br>Midwives. | Percentage<br>of Stillbirths<br>reported by<br>Midwives to<br>total births<br>attended<br>by them. |
|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1931        | 11,176                                                                     | 293                                                            | 2·62                                                                                               |
| 1932        | 10,460                                                                     | 279                                                            | 2·66                                                                                               |
| <b>1933</b> | <b>10,364</b>                                                              | <b>292</b>                                                     | <b>2·81</b>                                                                                        |

**SUMMARY OF RECORDS FROM MIDWIVES.**—The following table gives the number of Records, &c., received from certified midwives during the year 1933, and the preceding two years:—

|                                                    | 1931.              | 1932.              | 1933.                     |
|----------------------------------------------------|--------------------|--------------------|---------------------------|
| Records of sending for medical help ...            | 5170               | 4943               | <b>5083</b>               |
| Stillbirths ... Males ... Females ...              | 160 } 293<br>133 } | 151 } 279<br>123 } | 143 } <b>292</b><br>149 } |
| Deaths of Mother or Child ... Mother ... Child ... | 31 } 299<br>268 }  | 21 } 288<br>267 }  | 26 } <b>278</b><br>252 }  |
| Substitution of artificial for breast feeding ...  | 132                | 123                | <b>124</b>                |
| Liability to be a source of infection ...          | 141                | 150                | <b>128</b>                |
| Laying-out the dead ...                            | 64                 | 55                 | <b>68</b>                 |

**NUMBER OF CONFINEMENTS ATTENDED BY CERTIFIED MIDWIVES.**—The following table shows the total number of births (live and still) attended by midwives during the year 1933, and the percentage to total births registered, compared with 1931 and 1932:—

| Year.       | Total Births<br>(live and still)<br>(Midwives<br>area) | * Total Births<br>attended by<br>Certified<br>Midwives. | Percentage<br>of total Births<br>attended<br>by<br>Midwives<br>to total<br>Births<br>registered. |
|-------------|--------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1931        | 24,468                                                 | 11,176                                                  | 45·6                                                                                             |
| 1932        | 23,052                                                 | 10,460                                                  | 45·3                                                                                             |
| <b>1933</b> | <b>22,167</b>                                          | <b>10,364</b>                                           | <b>46·7</b>                                                                                      |

\*Exclusive of cases attended by certified midwives in the capacity of maternity nurse.

†In the year 1933, 7 midwives attended over 100 cases.

|     |   |           |          |        |
|-----|---|-----------|----------|--------|
| 11  | „ | between   | 75 & 100 | cases. |
| 33  | „ | „         | 50 & 74  | „      |
| 89  | „ | „         | 25 & 49  | „      |
| 241 | „ | „         | 5 & 24   | „      |
| 169 | „ | less than | 5        | cases. |

†Midwives on the County Register as “practising” but who did not actually attend any cases during the year are excluded, and the figures also exclude the births attended by midwives residing in County Boroughs who take only an occasional case in the County area.

PUERPERAL FEVER AND PUERPERAL PYREXIA.—The Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926.—These Regulations came into operation on the 1st October, 1926.

Puerperal pyrexia is defined as “any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease (Notification) Acts), occurring in a woman within 21 days after childbirth or miscarriage in which a temperature of 100·4°F or more has been sustained during a period of 24 hours, or has recurred during that period.”

Under the Infectious Disease (Notification) Act a medical practitioner is required to notify to the local Medical Officer of Health, on a form of Certificate contained in Part I of the Schedule to the Regulations, any case of puerperal fever occurring in any person upon whom he is in attendance, and under the Regulations above mentioned he is required to notify on the form in the second Schedule to these Regulations any case when he first becomes aware that any woman upon whom he is in attendance is suffering from puerperal pyrexia. The District Medical Officer of Health is required to forward a copy of every notification (both puerperal fever and puerperal pyrexia) received by him to the Medical Officer of Health of the County within 24 hours.

During the year 1933 the following notifications were received :—puerperal fever 42, puerperal pyrexia 222.

The notifications received during 1933 are analysed below and for comparison the 1932 totals are given :—

|                                                                                                   | Notified<br>as :—                                                      | Cases.                                      | Deaths. | Mortality<br>rate<br>per cent. |
|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------|---------|--------------------------------|
| Cases attended at childbirth solely by certified midwives.                                        | <div><div>P.F.<br/>P.P.</div><div>14<br/>57</div><div>71</div></div>   | <div><div>3<br/>2</div><div>5</div></div>   | 7·0     |                                |
| Cases in which certified midwives acted as nurses under the supervision of medical practitioners. | <div><div>P.F.<br/>P.P.</div><div>12<br/>37</div><div>49</div></div>   | <div><div>4<br/>4</div><div>8</div></div>   | 16·3    |                                |
| Cases in which certified midwives were not in attendance.                                         | <div><div>P.F.<br/>P.P.</div><div>16<br/>128</div><div>144</div></div> | <div><div>3<br/>2</div><div>5</div></div>   | 3·4     |                                |
| Total 1933      ...      ...      ...      ...                                                    | <div><div>P.F.<br/>P.P.</div><div>42<br/>222</div><div>264</div></div> | <div><div>10<br/>8</div><div>18</div></div> | 6·8     |                                |
| Total 1932      ...      ...      ...      ...                                                    | <div><div>P.F.<br/>P.P.</div><div>46<br/>182</div><div>228</div></div> | <div><div>7<br/>13</div><div>20</div></div> | 8·6     |                                |

The deaths from puerperal fever and puerperal pyrexia reported in connection with the work under the Midwives Acts, do not correspond with the deaths classified by the Registrar-General in his annual statistics under the heading “puerperal sepsis,” the discrepancy probably being due to the inclusion under the latter head of deaths from certain conditions of the puerperal state which have not been reported under the Notification Act, &c., together with the fact that during the year, on the Registrar-General’s “inward transfer” slips there were 13 deaths of County residents registered as due to puerperal septicaemia of cases which had not been notified to the County Public Health Department.



The Chief Medical Officer of the Ministry of Health in his report for the year 1932 states, puerperal sepsis is the most important cause of maternal mortality, and continued pathological research and clinical observation are needed in order to improve and perfect measures for the prevention and control of infection. Early diagnosis of an infective condition and the prompt treatment of all suspected cases as if they were in fact declared sepsis, does much to prevent the spread, if not the occurrence of dangerous infection. The distinction between conditions due to hæmolytic streptococci and other less virulent organisms is important, and precautions against carriers of infection are essential, especially in hospital practice. Adequate isolation of all suspected or actual cases is required, and there are advantages in providing special units for the treatment of all cases occurring within a definite area, as means of diagnosis and treatment are then concentrated in one institution and valuable experience gained by those in charge.

The following paragraphs indicate the facilities provided by the County Council in this connection, i.e., the appointment of consultant obstetricians, facilities for bacteriological examinations, arrangements for treatment of cases in hospitals, and the services of skilled nurses.

SPECIAL ASSISTANCE PROVIDED BY THE COUNTY COUNCIL UNDER THE PUERPERAL FEVER AND PUERPERAL PYREXIA REGULATIONS.—The County Council, as the Maternity and Child Welfare Authority for a large area of the Administrative County—74 districts—has made provision for the facilities which a medical practitioner may call for, viz., a second opinion, bacteriological examinations, hospital provision and trained nurses. In 37 districts in the Administrative County the Town or District Council is the Maternity and Child Welfare Authority.

The following specialists are available for consultations in the County area :—

- |                                                                                                                          |                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dr. R. Y. Aitken,<br>Oakfield,<br>Blackburn.<br>(Tel. Blackburn 5034).                                                   | Dr. C. Philip Brentnall,<br>18, St. John Street,<br>Manchester.<br>(Tel. Manchester City 5630 ; Residence : Didsbury 3762).                          |
| Dr. Jeffrey Ramsey,<br>53, Preston New Road,<br>Blackburn.<br>(Tel. Blackburn 5225 ; Residence : Ribchester 20).         | Dr. D. Dougal,<br>11, St. John Street,<br>Manchester.<br>(Tel. Manchester City 7377 ; Residence : Didsbury 1434).                                    |
| Dr. S. English,<br>184, Promenade,<br>Blackpool.<br>(Tel. Blackpool 953).                                                | Dr. Gordon Fitzgerald,<br>Northern Assurance Buildings,<br>Albert Square,<br>Manchester.<br>(Tel. Manchester City 7580 ; Residence : Didsbury 3350). |
| Dr. R. W. Beesley,<br>135, Deane Road,<br>Bolton.<br>(Tel. Bolton 417 and 1527 ; Residence : 517).                       | Dr. Eric Gerrard,<br>26, St. John Street,<br>Manchester.<br>(Tel. Manchester Blackfriars 0079 ; Residence : Swinton 1850).                           |
| Dr. A. Callam,<br>345, Colne Road,<br>Reedley,<br>Burnley.<br>(Tel. Burnley 3973 ; Residence : 2867).                    | Dr. F. H. Lacey,<br>16, St. John Street,<br>Manchester.<br>(Tel. Manchester Central 1500 ; Residence : Didsbury 92).                                 |
| Dr. J. W. Burns,<br>75, Rodney Street,<br>Liverpool.<br>(Tel. Liverpool Royal 4272).                                     | Dr. W. Fletcher Shaw,<br>20, St. John Street,<br>Manchester.<br>(Tel. Manchester City 0727 ; Residence : Rusholme 4644).                             |
| Dr. A. A. Gemmell,<br>55, Rodney Street,<br>Liverpool.<br>(Tel. Liverpool Royal 2270 ; after 6 p.m. Wavertree 507)       | Dr. K. M. Duncan,<br>4, Ribblesdale Place,<br>Preston.<br>(Tel. Preston 5489).                                                                       |
| Dr. T. N. A. Jeffcoat,<br>38, Rodney Street,<br>Liverpool.<br>(Tel. Liverpool Royal 2090).                               | Dr. W. Hirst Bateman,<br>Daisy Bank,<br>Rochdale.<br>(Tel. Rochdale 2456).                                                                           |
| Dr. A. Leyland Robinson,<br>57, Rodney Street,<br>Liverpool.<br>(Tel. Liverpool Royal 61).                               | Dr. A. S. Garden,<br>33, Queen's Road,<br>Southport.<br>(Tel. Southport 5213).                                                                       |
| Dr. J. St. George Wilson,<br>13, Rodney Street,<br>Liverpool.<br>(Tel. Liverpool Royal 2168).                            | Dr. W. A. Mackay,<br>46, Houghton Street,<br>Southport.<br>(Tel. Southport 4234).                                                                    |
| Dr. W. R. Addis,<br>2, St. John Street,<br>Manchester.<br>(Tel. Manchester City 5247, 5248 ; Residence : Rusholme 1907). | Dr. E. J. Boyd,<br>Lightburne House,<br>Ulverston.<br>(Tel. Ulverston 51).                                                                           |
| Dr. K. Vernon Bailey,<br>2, St. John Street,<br>Manchester.<br>(Tel. Manchester City 8416 ; Residence : Rusholme 4399).  | Dr. Graham W. Christic,<br>Princes Street,<br>Ulverston.<br>(Tel. Ulverston 159).                                                                    |

(The arrangements by local authorities for the services of obstetric consultants and medical advisers are referred to on page 234.)

For bacteriological examinations of lochia and blood, facilities are available at the Public Health Laboratories of the Liverpool and Manchester Universities.

(In April, 1934, the Ministry of Health issued a letter to Medical Officers of Health on bacteriological investigation with reference to puerperal sepsis. The Circular suggests the action to be taken on the occurrence of pyrexia in a lying-in woman.)

Arrangements have been made by the County Council with certain hospitals in the County for the admission of cases of puerperal fever and puerperal pyrexia, and also with District Nursing Associations and Nursing Homes for the provision of trained nurses.

In areas where the local Health Authorities are responsible for the provision of facilities under these and the Ophthalmia Regulations complete arrangements have been made in 32 districts, and in 5 limited facilities are available.

The statement below shows the special assistance rendered during 1933 by the County Council, and by the Local Authorities which are Child Welfare Authorities :—

|                                                                           |                                                                                                                                            |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| In districts where the County Council is the "Local Authority."           | P.F.—Removal to hospital, 11 cases ; second opinion, 6 cases ; trained nurse provided, 2 cases.                                            |
|                                                                           | P.P.—Removal to hospital, 50 cases ; second opinion, 14 cases ; trained nurse provided, 1 case ; examination of lochia and blood, 2 cases. |
| In districts where the Town or District Council is the "Local Authority." | P.F.—Removal to hospital, 18 cases ; second opinion, 1 case.                                                                               |
|                                                                           | P.P.—Removal to hospital, 36 cases ; second opinion, 13 cases ; trained nurse provided, 2 cases.                                           |

OPHTHALMIA NEONATORUM.—The Public Health (Ophthalmia Neonatorum) Regulations, 1926. By notifications under these Regulations, and by medical help records received from certified midwives, 275 cases of inflammation of, or discharge from, the eyes came under notice ; of these, 129 were notified as ophthalmia neonatorum. In the previous year these figures were 238 and 120 respectively. Of the 129 ophthalmia neonatorum cases in 1933, 44 were doctors' cases, that is, no certified midwife was in attendance, or if present, only in the capacity of nurse.

SPECIAL ASSISTANCE UNDER THE OPHTHALMIA NEONATORUM REGULATIONS.—Below is a statement showing the special assistance rendered by the County Council and by the Local Child Welfare Authorities :—

|                                                                           |                                                                   |
|---------------------------------------------------------------------------|-------------------------------------------------------------------|
| In districts where the County Council is the "Local Authority."           | Removal to hospital, 12 cases ; trained nurse provided, 6 cases.  |
| In districts where the Town or District Council is the "Local Authority." | Removal to hospital, 12 cases ; trained nurse provided, 15 cases. |

In the area under the charge of the County Council for child welfare purposes, it is a standing instruction to the County nursing staff, who visit the homes in all notified cases of ophthalmia neonatorum, etc., that in virulent cases where no other expert nursing is available, the nurse may put aside all other work until the eyesight of the child is beyond danger or past cure.

Scheme for immediate notification of cases of Ophthalmia Neonatorum.—In 1933 a scheme was put into operation by the County Public Health Department for the purpose of obtaining *immediate* information of cases of ophthalmia neonatorum occurring in the practice of certified midwives. Midwives have been requested in all cases in which they have had occasion to call in medical assistance on account of inflammation of, or discharge from the eyes, however slight, to immediately notify the cases to the County Medical Officer by telegram or telephone. The department then takes immediate steps to see that the children receive proper treatment. The midwives are refunded the amount expended on the telegram or telephone. As regards the districts which are not in the County Council Child Welfare area arrangements have been made to notify promptly the local Medical Officer of Health. It is hoped by prompt administrative action to prevent blindness resulting from ophthalmia.



The table below is collated from information supplied by the local Medical Officers of Health in their Annual Reports :—

| OPHTHALMIA CASES. |                  |                      | Vision unimpaired. | Vision impaired. | Total blindness. | Deaths. |
|-------------------|------------------|----------------------|--------------------|------------------|------------------|---------|
| Number notified.  | Treated at home. | Treated at hospital. |                    |                  |                  |         |
| *139              | 105              | 34                   | 133                | 4                | —                | 2       |

\* In whole County—includes the four districts granted the powers of a local supervising authority.

**DISCIPLINARY MEASURES.**—The disciplinary action taken during 1933 is shown in the following table. The number of charges of negligence or misconduct against the certified midwives was 11, compared with 7 in the preceding year, and 5 in 1931. A number of minor breaches of the Rules were also dealt with.

|                                                    | Total No. of charges. | Result of action taken. |                            |                 |
|----------------------------------------------------|-----------------------|-------------------------|----------------------------|-----------------|
|                                                    |                       | Cautioned by letter.    | Report forwarded to C.M.B. | Verbal Caution. |
| Puerperal fever and puerperal pyrexia cases ... .. | 5                     | 4                       | —                          | 1               |
| Ophthalmia neonatorum cases                        | 4                     | 4                       | —                          | —               |
| Other offences ... ..                              | 2                     | 1                       | 1                          | —               |

**SUPERVISION OF MIDWIVES.**—The routine work of inspection is carried out by the County Inspector of Midwives. The year has been marked by an absence of serious charges of negligence against certified midwives. The amount of ante-natal work carried out by certified midwives is growing, and special stress is laid on this important work by the Inspector on her visits. In her “ talks ” reference is made to the rarer or more serious complications, and the action the midwife should take if such occur in her practice.

**Lectures to Midwives.**—Lectures to midwives have been given by members of the County Staff, and, in addition, through the kindness of the Medical Officers of Health of certain County Boroughs the midwives residing in adjacent districts have been invited to attend lectures in those towns.

**Post-Graduate Lectures.**—During the year five certified midwives were allowed a sum of 10s. 6d each, the fee of the Liverpool Maternity Hospital for post-graduate lectures. A sum of £20 was granted to a midwife whose name had been deleted from the Central Midwives Board’s Roll under Section 3(2) of the Midwives Act, 1926, and who now desired to take a post-graduate course in order that she might be qualified to re-commence practice.

**GRANTS, &C.—DISTRICT NURSING ASSOCIATIONS.**—The grants in 1933, under Section 101 of the Local Government Act, 1929, to District Nursing Associations providing maternity and child welfare services in or for the benefit of the County amounted to £445, and in addition £15 was contributed out of County funds to certain other Nursing Associations. Towards general nursing expenditure the County Council also contributed in 1933 to the Lancashire County Nursing Association £100, and to 146 District Nursing Associations £1,028. The number of visits paid to midwifery cases by the nurses of the County Association are given on page 86.

**Training as Midwives.**—During the year under report, ten applications were received from women desirous of training as midwives ; in three instances the County Council rendered financial assistance to enable the applicants to meet the fees of the training institutions.

**Subsidies.**—In four districts the County Council provide means of conveyance and give a small special fee to midwives for attending cases in outlying areas.

Compensation.—A sum of £34 11s. 6d. was paid by the County Council to midwives as compensation for loss of practice whilst under suspension on account of contact with infectious diseases.

A further sum of £46 10s. 0d. was paid to midwives as compensation for loss of cases where the patients entered a maternity or other hospital for their confinements on the recommendation of a medical practitioner, whether as a result of ante-natal examination, or of a summons by a midwife in an emergency.

UNCERTIFIED WOMEN ACTING AS MIDWIVES.—Complaints were received during the year 1933 from several districts that women not certified under the Midwives Acts were attending women in childbirth otherwise than under the direction of a medical practitioner. Enquiries were made in each instance, and appropriate action taken.

**Maternal Mortality.**—The deaths in the Administrative County in 1933 assigned to puerperal sepsis numbered 39, and 87 to other puerperal causes, a total of 126. In 1932 the figures were 36 and 78, a total of 114.

Prior to the year 1929 the mortality rates were based on the number of *live* births only, but as reliable statistics of *stillbirths* are now available, and as the total births, *i.e.*, live and stillbirths, provide a closer approximation to the number of women exposed to the risk of dying from puerperal conditions than live births alone, the maternal mortality rates are now and will be in future calculated on both bases, and will continue to be published on the two bases for a sufficient period to enable statistical continuity to be assured.

The table below gives particulars of the mortality of women in or associated with child-birth per thousand children born alive, and per thousand total births (live born and still born). The County rates are contrasted with the rates for England and Wales:—

| YEAR.    | NO. OF LIVE BIRTHS. | ADMINISTRATIVE COUNTY. |                          |        |                                         |                          |                              |                                          |                          |                              | *ENGLAND AND WALES.                     |                          |                              |                                          |                          |                              |
|----------|---------------------|------------------------|--------------------------|--------|-----------------------------------------|--------------------------|------------------------------|------------------------------------------|--------------------------|------------------------------|-----------------------------------------|--------------------------|------------------------------|------------------------------------------|--------------------------|------------------------------|
|          |                     | No. of Deaths.         |                          |        | Mortality per 1,000 <i>live</i> births. |                          |                              | Mortality per 1,000 <i>total</i> births. |                          |                              | Mortality per 1,000 <i>live</i> births. |                          |                              | Mortality per 1,000 <i>total</i> births. |                          |                              |
|          |                     | Puer-peral Sepsis.     | Other Puer-peral causes. | Total. | Puer-peral Sepsis.                      | Other Puer-peral causes. | Total Puer-peral Mor-tality. | Puer-peral Sepsis.                       | Other Puer-peral causes. | Total Puer-peral Mor-tality. | Puer-peral Sepsis.                      | Other Puer-peral causes. | Total Puer-peral Mor-tality. | Puer-peral Sepsis.                       | Other Puer-peral causes. | Total Puer-peral Mor-tality. |
| 1923 ... | 30,672              | 42                     | 94                       | 136    | 1·37                                    | 3·06                     | 4·43                         |                                          |                          |                              | 1·30                                    | 2·52                     | 3·82                         |                                          |                          |                              |
| 1924 ... | 29,519              | 46                     | 103                      | 149    | 1·56                                    | 3·49                     | 5·05                         |                                          |                          |                              | 1·39                                    | 2·51                     | 3·90                         |                                          |                          |                              |
| 1925 ... | 34,713              | 41                     | 108                      | 149    | 1·44                                    | 3·80                     | 5·24                         |                                          |                          |                              | 1·56                                    | 2·52                     | 4·08                         |                                          |                          |                              |
| 1926 ... | 27,944              | 70                     | 117                      | 187    | 2·51                                    | 4·19                     | 6·70                         |                                          |                          |                              | 1·60                                    | 2·52                     | 4·12                         |                                          |                          |                              |
| 1927 ... | 26,263              | 40                     | 90                       | 130    | 1·52                                    | 3·43                     | 4·95                         |                                          |                          |                              | 1·57                                    | 2·54                     | 4·11                         |                                          |                          |                              |
| 1928 ... | 26,390              | 56                     | 104                      | 160    | 2·12                                    | 3·94                     | 6·06                         |                                          |                          |                              | 1·79                                    | 2·63                     | 4·42                         | 1·72                                     | 2·52                     | 4·25                         |
| 1929 ... | 25,558              | 41                     | 84                       | 125    | 1·60                                    | 3·29                     | 4·89                         | 1·52                                     | 3·13                     | 4·65                         | 1·80                                    | 2·53                     | 4·33                         | 1·73                                     | 2·43                     | 4·16                         |
| 1930 ... | 25,342              | 50                     | 107                      | 157    | 1·97                                    | 4·22                     | 6·19                         | 1·87                                     | 4·00                     | 5·87                         | 1·92                                    | 2·48                     | 4·40                         | 1·84                                     | 2·38                     | 4·22                         |
| 1931 ... | 25,014              | 40                     | 81                       | 121    | 1·60                                    | 3·23                     | 4·83                         | 1·51                                     | 3·07                     | 4·58                         | 1·66                                    | 2·45                     | 4·11                         | 1·59                                     | 2·35                     | 3·95                         |
| 1932 ... | 24,239              | 36                     | 78                       | 114    | 1·48                                    | 3·22                     | 4·70                         | 1·40                                     | 3·05                     | 4·45                         | 1·61                                    | 2·60                     | 4·21                         | 1·55                                     | 2·49                     | 4·04                         |
| 1933 ... | 23,315              | 39                     | 87                       | 126    | 1·67                                    | 3·73                     | 5·40                         | 1·58                                     | 3·54                     | 5·12                         | 1·83                                    | 2·63                     | 4·51                         | 1·75                                     | 2·57                     | 4·32                         |

\* Rates extracted from the Annual Reports of the Registrar-General.

The Registrar-General reports 12 more maternal deaths in the Administrative County in the year 1933 than in 1932—3 from puerperal sepsis and 9 from other puerperal causes. Calculated on the number of live births, which were 924 fewer than in 1932, the maternal mortality rate has risen to 5·40 from 4·70 per 1,000 live births in 1932, and to 5·12 from 4·45 when calculated on the total of live and still births.

Every maternal death in the County area is investigated by a competent and experienced medical officer and in 83 County districts these investigations are undertaken by the Assistant County Medical Officers of Health. In the remaining 28 districts the investigations are carried out by the local Medical Officers of Health who are whole-time officials. A confidential report prepared on the facts and circumstances of each fatality is forwarded to the Ministry of Health. During the year 1933 the investigations numbered 84, and 8 deaths were referred for local enquiry.



The following table compares the maternal mortality rate (covering a period of five years 1929-1933) of groups of manufacturing, mining, agricultural and residential areas of the Administrative County :—

|                     |     |    | No. of Districts in the Groups. | 5 Years, 1929—1933. |                    | Mortality per 1,000 live births. |                    |                         |        |
|---------------------|-----|----|---------------------------------|---------------------|--------------------|----------------------------------|--------------------|-------------------------|--------|
|                     |     |    |                                 | No. of Births.      | No. of Deaths.     |                                  | Puer-peral Sepsis. | Other Puerperal Causes. | Total. |
|                     |     |    |                                 |                     | Puer-peral Sepsis. | Other Puerperal Causes.          |                    |                         |        |
| Manufacturing areas | ... | 21 | 24,227                          | 39                  | 90                 | 1·61                             | 3·71               | 5·32                    |        |
| Mining areas        | ... | 16 | 13,599                          | 26                  | 46                 | 1·91                             | 3·38               | 5·29                    |        |
| Agricultural areas  | ... | 15 | 17,634                          | 41                  | 52                 | 2·32                             | 2·95               | 5·27                    |        |
| Residential areas   | ... | 8  | 4,838                           | 8                   | 19                 | 1·65                             | 3·93               | 5·58                    |        |

Reference was made in last year's County report to the Final Report of the Departmental Committee on maternal mortality and morbidity and to the Committee's conclusions and recommendations.

On pages 227 and 228 mention is made of the work carried out at the ante-natal centres or clinics associated with the County Council's child welfare work, and on page 233 to the ante-natal work carried out in districts when the Town or District Council is the child welfare authority. In addition, in the County area, expectant mothers may be seen by the Assistant County Medical Officer of Health at any of the 74 child welfare centres, a list of which is given on pages 223 to 224. In the sparsely populated areas the County health visitor may be consulted, and she would, if necessary, arrange for further advice. Associated with this work may be mentioned the assistance afforded by the County Council to practising midwives to enable them to attend post-graduate courses, and also the encouragement given to midwives in the compensation scheme referred to on page 219, to advise the women who have booked them for confinement, to attend the centres for advice during pregnancy, or to consult their own medical adviser. The midwives, on the visits of the County Inspector, are repeatedly told that ante-natal care is quite as important a part of their work as the management of labour. The expectant mother herself can do much by an appreciation of the value of medical supervision during her pregnancy, and by an occasional visit to a clinic or to her medical adviser.

**The Nursing Homes Registration Act, 1927.**—REGISTRATION OF NURSING AND MATERNITY HOMES.—Under this Act the County Council has delegated its powers and duties to the Town or District Councils in 17 Municipal Boroughs and 1 Urban District, viz. :—

Municipal Boroughs :—

Accrington  
Ashton-under-Lyne  
Bacup  
Chorley  
Clitheroe  
Colne

Darwen  
Eccles  
Heywood  
Lancaster  
Leigh

Lytham Saint Anne's  
Middleton  
Morecambe and Heysham  
Nelson  
Rawtenstall  
Stretford.

Urban District :—

Swinton and Pendlebury.

From the area under the jurisdiction of the County Council, 167 applications for registration were received (to July, 1934), and dealt with as follows :—

|                                            |     |
|--------------------------------------------|-----|
| Certificate of registration issued ...     | 140 |
| (62 subsequently cancelled by request)     |     |
| Applications withdrawn ...                 | 23  |
| (Unable to comply with standard laid down) |     |
| Applications refused ...                   | 3   |
| (Unsuitable premises)                      |     |
| Under investigation ...                    | 1   |

One Exemption Certificate has been granted by the Ministry of Health to a Christian Science Nursing Home.

All the nursing homes on the County register are from time to time re-inspected by the Assistant County Medical Officers of Health, and during the year under report 49 such re-inspections took place.

The statement below shows the districts in the area under the jurisdiction of the County Council where registered nursing homes are situated :—

|                         |   |                               |   |
|-------------------------|---|-------------------------------|---|
| Adlington ... ..        | 1 | Thornton Cleveleys ... ..     | 5 |
| Barrowford ... ..       | 1 | Tottington ... ..             | 3 |
| Clayton-le-Moors ... .. | 1 | Turton ... ..                 | 1 |
| Crompton ... ..         | 2 | Ulverston ... ..              | 3 |
| Farnworth ... ..        | 2 | Upholland ... ..              | 1 |
| Fleetwood (B) ... ..    | 3 | Urmston ... ..                | 1 |
| Formby ... ..           | 5 | Walton-le-Dale ... ..         | 1 |
| Fulwood ... ..          | 2 | Waterloo-with-Seaforth ... .. | 7 |
| Great Crosby ... ..     | 5 | Widnes (B) ... ..             | 2 |
| Horwich ... ..          | 1 | Worsley ... ..                | 2 |
| Huyton-with-Roby ... .. | 1 | Blackburn (R) ... ..          | 1 |
| Kearsley ... ..         | 1 | Burnley (R) ... ..            | 1 |
| Leyland ... ..          | 3 | Chorley (R) ... ..            | 1 |
| Litherland ... ..       | 1 | Clitheroe (R) ... ..          | 1 |
| Longridge ... ..        | 2 | Fylde (R) ... ..              | 1 |
| Milnrow ... ..          | 1 | Lunesdale (R) ... ..          | 1 |
| Ormskirk ... ..         | 1 | Preston (R) ... ..            | 3 |
| Preesall ... ..         | 1 | West Lancashire (R) ... ..    | 3 |
| Prestwich ... ..        | 3 | Whiston (R) ... ..            | 1 |
| Radeliffe ... ..        | 1 | Wigan (R) ... ..              | 1 |
| Ramsbottom ... ..       | 1 |                               |   |

Statistics have been collated regarding the number of admissions to the registered nursing homes and as regards any fatalities. From the information supplied, 1,285 confinements took place during the year 1933, and 2 patients died in the homes, giving a maternal mortality rate of 1.55 per 1,000 births. Three other deaths are recorded of women *after* leaving the homes, which, together with the two previously mentioned produced a total mortality rate of 3.89 per 1,000 births, but in regard to the latter three deaths, one occurred in hospital two days after the confinement, registered as due to kidney trouble, another was certified as due to perforated gastric ulcer, and no particulars are available regarding the third death.

#### MATERNITY AND CHILD WELFARE IN THE COUNTY.

**County Council Child Welfare Scheme.**—The County Council's Child Welfare area at the end of 1933, comprised 74 districts.\* From these districts copy notifications of births received in 1933 by the County Medical Officer of Health under the provisions of the 1915 Act numbered 9,696. The actual number of live births registered in these districts was 10,628.

In the remaining 37 County districts, the Local Sanitary Authorities are responsible for Maternity and Child Welfare work.

\*Little Hulton amalgamated with Worsley, 1st April, 1933.

Norden amalgamated with Heywood (B) and Rochdale (C.B.), 1st October, 1933.

Barton-upon-Irwell (R), Bury (R), and Leigh (R), amalgamated with various districts, 1st April and 1st October, 1933

Failsworth included in County scheme, 1st April, 1933.

Upholland included in County scheme, 1st October, 1933.

Child Welfare work is therefore divided as follows :—

|                                                                                                     | Estimated population. | No. of live births registered in 1933. |
|-----------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------|
| Undertaken by the County Council—in 74 districts (2 boroughs, 57 urban, and 15 rural districts) ... | 812,722               | 10,628                                 |
| By Local Sanitary Authorities—in 37 districts (19 boroughs and 18 urban districts) ... ..           | 990,008               | 12,687                                 |
|                                                                                                     | 1,802,730             | 23,315                                 |



CO-ORDINATION OF THE WORK OF THE SCHOOL MEDICAL SERVICE WITH THAT OF OTHER HEALTH SERVICES.—The County Medical Officer of Health is School Medical Officer and Chief Medical Officer to the Public Assistance Committee. There are two Senior Assistants under him whose departmental duties are those of :—

1. (a) School Medical and Child Welfare Services.  
(b) Blind Persons Act.
2. (a) General Public Health.  
(b) Public Assistance.  
(c) Midwives Acts.

One woman Assistant Medical Officer is fully employed in the inspection of secondary school girls. The remaining Medical Officers are normally 18 in number, and in their dual capacity of Assistant Medical Officers of Health and Assistant School Medical Officers deal with all the problems of Public Health and School Medical Inspection, except those relating to Tuberculosis. Co-ordination in this latter branch is, however, maintained both at the Central Office and in the "field" by referring to the Tuberculosis Officer or notifying any cases of doubtful or evident disease respectively.

The School Nurses are also Health Visitors and Inspectors of boarded-out children under Part I of the Children Act, 1908, and it is unnecessary to add to the account of their duties any more than was contained in the Annual Report of 1930.

Work of County Health Visitors.—The following table shows the work done by the Nurses as Health Visitors during the year 1933 :—

HOME VISITS—

(*Infants under one year*)—

|                   |     |     |     |     |     |     |     |        |
|-------------------|-----|-----|-----|-----|-----|-----|-----|--------|
| No. of 1st visits | ... | ... | ... | ... | ... | ... | ... | 10,718 |
| No. of re-visits  | ... | ... | ... | ... | ... | ... | ... | 41,678 |

(*Children 1—5 years of age*)—

|               |     |     |     |     |     |     |     |        |
|---------------|-----|-----|-----|-----|-----|-----|-----|--------|
| No. of visits | ... | ... | ... | ... | ... | ... | ... | 33,210 |
|---------------|-----|-----|-----|-----|-----|-----|-----|--------|

ANTE-NATAL WORK—

(*Expectant Mothers*)—

|                   |     |     |     |     |     |     |     |       |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-------|
| No. of 1st visits | ... | ... | ... | ... | ... | ... | ... | 2,123 |
| No. of re-visits  | ... | ... | ... | ... | ... | ... | ... | 2,321 |

OTHER VISITS—

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Special visits to older children, Medical Officers of Health, &c. | 1,274 |
| Visits to cases of ophthalmia neonatorum and other matters        | 294   |
| Visits to cases of puerperal fever and puerperal pyrexia          | 30    |
| Visits to cases under Children Act, 1908 (Part I.)                | 350   |

County Child Welfare Centres.—During the year two Child Welfare Centres have been transferred to other Authorities owing to the re-adjustment of boundaries ; one Centre has been taken over by the County Council from an Authority whose Maternity and Child Welfare work has been transferred to the County Council, and three new Centres have been established. The list of those which have been established to date is as follows :—

|                  |                   |                   |                    |
|------------------|-------------------|-------------------|--------------------|
| Abram            | Clifton‡          | Leyland (2)       | Rishton            |
| Adlington        | Coppull           | Litherland        | Sabden             |
| Aspull           | Crompton          | Littleborough     | Skelmersdale       |
| Atherton         | Dalton-in-Furness | Little Lever      | Standish           |
| Audenshaw        | Droylsden         | Longridge         | Thornton Cleveleys |
| Bamber Bridge    | Failsworth        | Milnrow           | Tottington         |
| Barrowford       | Feniseowles       | Morecambe and     | Trawden            |
| Barton           | Fleetwood (B) (2) | Heysham (B)       | Ulverston          |
| Billinge         | Formby            | Norden*           | Upholland§         |
| Blackrod         | Garstang          | Ormskirk          | Urmston (3)        |
| Briercliffe      | Great Crosby      | Orrell (2)        | Walkden            |
| Bromley Cross    | Great Harwood†    | Oswaldtwistle (2) | Waterloo           |
| Burtonwood       | Haydock           | Padiham           | Whalley            |
| Carnforth        | Irlam (2)         | Penketh           | Whitefield         |
| Catforth         | Kearsley          | Poulton-le-Fylde  | Whittle-le-Woods   |
| Chipping         | Kirkham           | Preesall          | Whitworth          |
| Church           | Lathom and        | Preseot           |                    |
| Clayton-le-Moors | Burseough         | Prestwich         |                    |

‡ Transferred to Swinton and Pendlebury, 1st April, 1933.

\* Transferred to Rochdale C.B., 1st October, 1933.

§ Transferred to County Council, 1st October, 1933.

† Transferred to County Council, 1st April, 1934.

With the exception of Morecambe and Heysham (B), the County Council is also the Education Authority in the districts where these Centres have been established. The Assistant County Medical Officers are, as a rule, in charge of these Centres, but in a few cases the local Medical Officers of Health have remained in charge.

In the following districts the Child Welfare and Maternity Work is done by the local district Sanitary Authority :—

Ashton-in-Makerfield  
Brierfield  
Denton  
Golborne  
Horwich

Newton-in-Makerfield  
Ramsbottom  
Royton  
Tyldesley  
Westhoughton

Instruction in mothercraft continues at certain of the Centres on the lines described in previous reports.

The following is a list of the Child Welfare Centres established by the County Council :—

| District.                          | Address of<br>Child Welfare Centre.           | Day and Time Open.                                                                        | Medical Officer. | Nurse.                         |
|------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------|------------------|--------------------------------|
| Abram ... ..                       | Near Council Offices,<br>Abram                | Alternate Wed., 2.30—<br>4.30 and for sale of<br>food on other Wed.<br>from 10.30 to noon | Dr. Erskine ...  | Miss Unsworth                  |
| Adlington ... ..                   | Methodist Sunday School,<br>Market Street     | Wednesday, 2—4 ...                                                                        | Dr. Johnstone    | Miss Kennedy                   |
| Aspull (New Springs)               | Ind. Methodist Sunday<br>School, New Springs  | Wednesday, 2—4 ...                                                                        | Dr. Eldridge ... | Miss Evans and<br>Miss Edwards |
| Atherton ... ..                    | Alder House ... ..                            | Wednesday, 2.15—3.30                                                                      | Dr. Leigh        | Miss Dudley and<br>Miss Smith  |
| Audenshaw ... ..                   | “Westernlea,”<br>Denton Road                  | Monday, 2—4 ... ..                                                                        | Dr. Ashcroft ... | Miss Dickinson                 |
| Bamber Bridge<br>(Walton-le-Dale)  | Conservative Club,<br>Cranborne Road          | Thursday, 2—4 ...                                                                         | Dr. Johnstone    | Miss Canton                    |
| Barrowford ... ..                  | Congl. Sunday School,<br>Hill Top             | Thursday, 2—4 ...                                                                         | Dr. Corbett ...  | Miss Wright                    |
| Barton (Preston R.)                | Village Hall ... ..                           | First Wednesday each<br>month, 2—4                                                        | Dr. Wray ...     | Miss Rigby                     |
| Billinge ... ..                    | Conservative Club ...                         | Wednesday, 10—12                                                                          | Dr. Wright ...   | Miss Webster                   |
| Blackrod ... ..                    | Church House Institute                        | Tuesday, 2—4 ...                                                                          | Dr. Brothwood    | Miss Evans                     |
| Briercliffe ... ..<br>(Burnley R.) | Tennyson Street Mission<br>Hall               | Alternate Wednesdays,<br>2.30—4                                                           | Dr. Corbett ...  | Miss Mares                     |
| Bromley Cross<br>(Turton)          | Birtenshaw Meth.Sunday<br>School, Darwen Road | Monday, 2.30—4.30 ...                                                                     | Dr. Jagger ...   | Miss Lynch                     |
| Burtonwood<br>(Warrington R.)      | Church Hall ... ..                            | Thursday, 10—12 ...                                                                       | Dr. Crawford ... | Mrs. Birchall                  |
| Carnforth ... ..                   | 21, Market Street ...                         | Friday, 2—4 ... ..                                                                        | Dr. Tomb ...     | Miss Walker                    |
| Catforth (Preston R.)              | Village Hall ... ..                           | Every fourth<br>Monday, 2—4                                                               | Dr. Brothwood    | Miss Canton                    |
| Chipping (Clitheroe R.)            | Oddfellows Institute ...                      | Second and fourth<br>Wednesdays, 2—4                                                      | Dr. Brothwood    | Miss Rigby                     |
| Church ... ..                      | Baptist Sunday School,<br>Ernest Street       | Thursday, 2—4 ...                                                                         | ...              | Miss Hanes                     |
| Clayton-le-Moors ...               | Town Hall ... ..                              | Thursday, 2—4 ...                                                                         | ...              | Mrs. Gray                      |
| Coppull<br>(Chorley R.)            | Methodist Sunday School,<br>Chapel Street     | Thursday, 2—4 ...                                                                         | Dr. Johnstone    | Miss Beach                     |
| Crompton ... ..                    | East Crompton, Church<br>Institute            | Tuesday, 2—4 ...                                                                          | Dr. Porter ...   | Mrs. Stringer                  |
| Dalton-in-Furness ...              | Carnegie Library ...                          | Thursday, 2—4 ...                                                                         | Dr. Tomb ...     | Miss Tomkinson                 |
| Davyhulme(Urmston)                 | “Moorlands,” Cornhill Rd.                     | Monday, 2.30—4 ...                                                                        | Dr. Davidson     | Miss Lawley                    |
| ” ”                                | ” ”                                           | Wednesday, 2—4 ...                                                                        | Dr. Stocks ...   | Miss Lawley                    |
| Droylsden ... ..                   | “Morningside,”<br>Fairfield Avenue            | Tuesday and Thursday,<br>2—4                                                              | Dr. Ashcroft ... | Mrs. Hutchinson                |
| Failsworth ... ..                  | Free Library                                  | Wednesday, 2—4 ...                                                                        | Dr. Webb ...     | Miss Hall and<br>Mrs. Anderton |
| Feniscowles<br>(Blackburn R.)      | Mission Hall, Preston Old<br>Road             | Tuesday, 2—4 ... ..                                                                       | ...              | Mrs. Beckett                   |
| Fleetwood (B.) ...                 | (1) Orient Buildings,<br>Station Road         | Tuesday, 2—4 ...                                                                          | Dr. Batty ...    | Mrs. Dewhurst                  |
| ” ... ..                           | (2) ” ” ...                                   | Wednesday, 2—4 ...                                                                        | Dr. Batty ...    | Miss Fawcett                   |
| Flixton (Urmston) ...              | The Institute, Flixton<br>Road                | Tuesday, 2.30—4 ...                                                                       | Dr. Davidson     | Mrs. Chambers                  |



LIST OF COUNTY CHILD WELFARE CENTRES.—*continued.*

| District.                            | Address of<br>Child Welfare Centre.             | Day and Time Open.                            | Medical Officer.   | Nurse.                             |
|--------------------------------------|-------------------------------------------------|-----------------------------------------------|--------------------|------------------------------------|
| Fornaby ... ..                       | 25, Chapel Lane ... ..                          | Wednesday, 2—4 ... ..                         | Dr. Barker ... ..  | Miss Hughes                        |
| †Garstang ... ..                     | Oddfellows Hall... ..                           | Second Wednesday each<br>month, 2—4           | Dr. Batty ... ..   | Mrs. Dewhurst                      |
| ‡Great Crosby ... ..                 | 57, York Avenue ... ..                          | Wednesday, 2—4 ... ..                         | Dr. Barker ... ..  | Mrs. Palin                         |
| §Great Harwood ... ..                | Mereer Hall ... ..                              | Wednesday, 2—4 ... ..                         | Dr. Cumming        | Miss Patchett                      |
| Haydock ... ..                       | Methodist Sunday School,<br>Clipsley Lane       | Wednesday, 2—4 ... ..                         | Dr. Crawford ...   | Miss Hodgson                       |
| Irlam ... ..                         | Longfield Lodge,<br>Cadishead                   | Alternate Wednesdays,<br>2—4                  | Dr. Roberts ...    | Mrs. Smith                         |
| „ ... ..                             | Irlam Hall,<br>Irlam                            |                                               |                    |                                    |
| Kearsley ... ..                      | New Jerusalem School,<br>Greenwood Street       | Thursday, 2—4 ... ..                          | Dr. Jagger ... ..  | Miss McLean                        |
| Kirkham ... ..                       | Mellor Road ... ..                              | Thursday, 2—4 ... ..                          | Dr. Brothwood      | Miss Smith                         |
| Lathom and Burs-<br>cough (Ormskirk) | Old Council Offices ... ..                      | Friday, 2—4 ... ..                            | Dr. Wray ... ..    | Miss Dickinson                     |
| Leyland ... ..                       | (1) Bradshaw Street ... ..<br>Mission Room      | Alternate Wednesdays,<br>2—4                  | Dr. Wray ... ..    | Miss Hughes                        |
| „ ... ..                             | (2) Congl. Schools, Quin<br>Street              | Thursday, 2.30—4 ... ..                       | Dr. Wray ... ..    | Miss Hughes                        |
| Litherland ... ..                    | 32, Linaere Road ... ..                         | Tuesday, 2—4 ... ..                           | Dr. Barker ... ..  | Miss Robinson and<br>Miss Shaw     |
| Littleborough ... ..                 | Roekley House ... ..                            | Thursday, 2—4 ... ..                          | Dr. Wilson ... ..  | Miss Sizer                         |
| Little Lever ... ..                  | Church House Institute                          | Monday, 2.30—4 ... ..                         | Dr. Hutcheson      | Miss Wellard                       |
| Longridge ... ..                     | 26, Kestor Lane ... ..                          | Tuesday, 2—4 ... ..                           | Dr. Wray ... ..    | Miss Rigby                         |
| Milnrow ... ..                       | 1, Wesley Street ... ..                         | Tuesday, 2—4 ... ..                           | Dr. Wilson ... ..  | Miss Sizer                         |
| Morecambe and<br>Heysham (B.) ... .. | West End Methodist<br>Sunday School             | Monday, 2—4 ... ..                            | Dr. Tomb ... ..    | Miss Menzies                       |
| *Norden ... ..                       | Liberal Club ... ..                             | Wednesday, 2—4 ... ..                         | Dr. Wilson ... ..  | Miss Cubbin                        |
| Ormskirk ... ..                      | Church House, Church<br>Street                  | Monday, 2—4 ... ..                            | Dr. Barker ... ..  | Miss Dickinson                     |
| Orrell ... ..                        | (1) 299-301 Orrell Road                         | Thursday, 2—4.30 ... ..                       | Dr. Gawne ... ..   | Miss Singleton                     |
| *‡ „ ... ..                          | (2) „ „ „ „                                     | Monday, 2—4 ... ..                            | Dr. Gawne ... ..   | Miss Webster                       |
| Oswaldtwistle ... ..                 | Barnfield House ... ..                          | Tuesday, 2—4 ... ..                           | Dr. Conway ... ..  | Miss Townend                       |
| „ ... ..                             | Conservative Club,<br>Belthorn                  | Quarterly ... ..                              | Dr. Conway ... ..  | Miss Townend                       |
| Padiham ... ..                       | West Bank House ... ..                          | Tuesday, 2.30—4 ... ..                        | Dr. Corbett ... .. | Mrs. Read                          |
| Penketh (Warrington<br>R.)           | Methodist Sunday School                         | Tuesday, 2—4 ... ..                           | Dr. Crawford       | Mrs. Birehall                      |
| Poulton-le-Fylde ... ..              | St. Chad's Church Hall                          | Alternate Tuesdays,<br>2—4                    | Dr. Brothwood      | Miss Procter                       |
| Preesall ... ..                      | Parochial Hall ... ..                           | Alternate Thursdays,<br>2—4                   | Dr. Batty ... ..   | Mrs. Dewhurst                      |
| Preseot ... ..                       | Old Grammar School,<br>High Street              | Monday and Thursday<br>2—4                    | Dr. Wright ... ..  | Miss Walters and<br>Miss Heseltine |
| Prestwich ... ..                     | Methodist Sunday School,<br>Chapel Street       | Thursday, 2—4.30 ... ..                       | Dr. Hutcheson      | Miss Dobson                        |
| Rishton ... ..                       | 108, High St. ... ..                            | Tuesday, 2—4 ... ..                           | ...                | Miss Hanes                         |
| Sabden (Burnley R.)                  | Methodist Sunday School                         | Alternate Thursdays,<br>2—4                   | Dr. Corbett ... .. | Miss Mares                         |
| Skelmersdale ... ..                  | Congregational Schools,<br>Witham Street        | Wednesday, 10—12.30                           | Dr. Brothwood      | Miss Fry                           |
| Standish-with-<br>Langtree           | Methodist Sunday School                         | Wednesday, 2—4 ... ..                         | Dr. Johnstone      | Miss Irving                        |
| Thornton Cleveleys                   | Primitive Meth. Sunday<br>School, Fleetwood Rd. | Thursday, 2—4 ... ..                          | Dr. Batty ... ..   | Miss Procter                       |
| Tottington ... ..                    | Council Offices ... ..                          | Wednesday, 2.30—4 ... ..                      | Dr. Hutcheson      | Mrs. Tregarthen                    |
| Trawden ... ..                       | Methodist Sunday School                         | Wednesday, 2—4 ... ..                         | Dr. Corbett ... .. | Miss Wright                        |
| Ulverston ... ..                     | “The Rookery” ... ..                            | Wednesday, 2—4 ... ..                         | Dr. Tomb ... ..    | Miss Holmes                        |
| Walkden (Worsley)                    | 51, Park Road ... ..                            | Thursday, 2—4 ... ..                          | Dr. Stocks ... ..  | Miss Murphy                        |
| *†Wardle ... ..                      | Methodist Sunday School                         | First and Third Tues-<br>days each month, 2—4 | Dr. Wilson ... ..  | Miss Cubbin                        |
| Waterloo<br>(Limehurst R.)           | Methodist Sunday School                         | Alternate Thursdays,<br>2—4                   | Dr. Porter ... ..  | Miss Hall                          |
| Whalley (Clitheroe R.)               | Methodist Sunday School                         | Monday, 2—4 ... ..                            | Dr. Brothwood      | Miss Rigby                         |
| Whitefield ... ..                    | “Uplands” ... ..                                | Tuesday, 2.30—4 ... ..                        | Dr. Hutcheson      | Mrs. Tregarthen                    |
| ‡§Whittle-le-Woods<br>(Chorley R.)   | Parish Club, Chorley Rd.                        | First and Third Fridays,<br>2—4               | Dr. Wray ... ..    | Miss Laycock                       |
| Whitworth ... ..                     | Burnedge Villa, Facit                           | Thursday, 2.45—4 ... ..                       | Dr. Wilson ... ..  | Miss Cubbin                        |

†Garstang Centre opened 7th March, 1934. ‡Great Crosby Centre opened 4th October, 1933.

§Taken over from Great Harwood Urban District, 1st April, 1934.

\*Norden Centre transferred to Rochdale County Borough, 1st October, 1933.

\*†Wardle Centre opened 5th June, 1934.

\*‡Orrell No. 2 Centre opened for Upholland, 23rd October, 1933.

†§Whittle-le-Woods Centre opened 16th February, 1934.

The following table gives a statistical summary of the work done in the Centres during the year ended 31st December, 1933 :—

| Name of Child Welfare Centre. | No. of Sessions. | No. of Births Notified during the 12 months. | No. of individual children attending |                   |                   | No. of attendances by children. |                   |                  | No. of attendances by expectant mothers        |                            | No. of attendances by other women. |                            |
|-------------------------------|------------------|----------------------------------------------|--------------------------------------|-------------------|-------------------|---------------------------------|-------------------|------------------|------------------------------------------------|----------------------------|------------------------------------|----------------------------|
|                               |                  |                                              | Under 1 year old.                    | From 1—2 yrs. old | Over 2 years old. | Under 1 year old                | From 1—2 yrs. old | Over 2 years old | No. of individual expectant mothers attending. | No. of actual attendances. | No. of individual women attending  | No. of actual attendances. |
| Abram... ..                   | 23               | 109                                          | 158                                  | 81                | 73                | 1049                            | 514               | 360              | 31                                             | 85                         | 11                                 | 21                         |
| Adlington ... ..              | 47               | 59                                           | 80                                   | 70                | 86                | 1132                            | 819               | 1325             | 23                                             | 180                        | 19                                 | 144                        |
| Aspull (New Springs)          | 48               | 116                                          | 129                                  | 49                | 28                | 1286                            | 434               | 150              | 37                                             | 233                        | 89                                 | 214                        |
| Atherton ... ..               | 47               | 247                                          | 236                                  | 136               | 41                | 2244                            | 616               | 77               | 27                                             | 99                         | 2                                  | 8                          |
| Audenshaw ... ..              | 48               | 110                                          | 124                                  | 83                | 96                | 1674                            | 750               | 649              | 16                                             | 50                         | 7                                  | 44                         |
| Bamber Bridge ...             | 48               | 71                                           | 141                                  | 113               | 102               | 1312                            | 1016              | 790              | 40                                             | 249                        | 96                                 | 421                        |
| Barrowford ... ..             | 48               | 60                                           | 86                                   | 59                | 60                | 995                             | 227               | 205              | 1                                              | 2                          | 20                                 | 39                         |
| Barton ... ..                 | 12               | 12                                           | 45                                   | 49                | 56                | 150                             | 135               | 143              | 4                                              | 9                          | 17                                 | 68                         |
| Billinge ... ..               | 48               | 61                                           | 61                                   | 46                | 36                | 440                             | 200               | 161              | 15                                             | 52                         | 2                                  | 6                          |
| Blackrod ... ..               | 48               | 43                                           | 57                                   | 48                | 25                | 651                             | 441               | 150              | 17                                             | 91                         | 30                                 | 47                         |
| Briercliffe ... ..            | 24               | 25                                           | 41                                   | 27                | 35                | 226                             | 215               | 205              | 3                                              | 6                          | 7                                  | 9                          |
| Bromley Cross ...             | 47               | 19                                           | 105                                  | 82                | 94                | 1141                            | 337               | 331              | 30                                             | 102                        | ...                                | ...                        |
| Burtonwood ... ..             | 48               | 29                                           | 25                                   | 16                | 17                | 338                             | 221               | 166              | 6                                              | 28                         | 9                                  | 16                         |
| Carncroft ... ..              | 47               | 42                                           | 64                                   | 40                | 53                | 444                             | 285               | 332              | 16                                             | 29                         | ...                                | ...                        |
| Catforth ... ..               | 13               | 8                                            | 28                                   | 16                | 21                | 131                             | 65                | 95               | 4                                              | 7                          | 15                                 | 21                         |
| Chipping ... ..               | 23               | 14                                           | 14                                   | 8                 | 16                | 92                              | 48                | 95               | 9                                              | 33                         | 16                                 | 82                         |
| Church ... ..                 | 47               | 50                                           | 139                                  | 84                | 74                | 1778                            | 795               | 752              | 14                                             | 139                        | 7                                  | 172                        |
| Clayton-le-Moors ...          | 48               | 98                                           | 75                                   | 63                | 50                | 736                             | 811               | 441              | 19                                             | 227                        | 30                                 | 337                        |
| (a) Clifton ... ..            | 12               | 10                                           | 31                                   | 22                | 7                 | 204                             | 131               | 40               | 1                                              | 2                          | ...                                | ...                        |
| Coppull ... ..                | 47               | 62                                           | 100                                  | 83                | 114               | 1193                            | 966               | 1119             | 15                                             | 85                         | 29                                 | 196                        |
| Crompton ... ..               | 47               | 103                                          | 150                                  | 96                | 75                | 1887                            | 1085              | 732              | 12                                             | 42                         | 5                                  | 6                          |
| Dalton... ..                  | 48               | 139                                          | 187                                  | 141               | 195               | 1228                            | 809               | 1169             | 82                                             | 383                        | ...                                | ...                        |
| Droylsden ... ..              | 94               | 196                                          | 269                                  | 111               | 83                | 3730                            | 932               | 429              | 29                                             | 113                        | 10                                 | 105                        |
| (b) Failsworth ... ..         | 36               | 118                                          | 182                                  | 93                | 78                | 2021                            | 574               | 393              | 3                                              | 8                          | 2                                  | 2                          |
| Feniseowles ... ..            | 48               | 10                                           | 28                                   | 18                | 19                | 285                             | 50                | 117              | 3                                              | 7                          | 6                                  | 20                         |
| Fleetwood (B) (No. 1)         | 48               | 411                                          | 215                                  | 100               | 133               | 2107                            | 767               | 823              | 20                                             | 113                        | ...                                | ...                        |
| Fleetwood (B) (No. 2)         | 48               | ...                                          | 251                                  | 149               | 193               | 2391                            | 1028              | 1129             | 26                                             | 181                        | ...                                | ...                        |
| Formby ... ..                 | 48               | 75                                           | 63                                   | 38                | 56                | 730                             | 364               | 506              | 1                                              | 2                          | 2                                  | 4                          |
| (c) Great Crosby ...          | 12               | 86                                           | 74                                   | 28                | 27                | 366                             | 98                | 95               | 11                                             | 33                         | ...                                | ...                        |
| Haydock ... ..                | 45               | 178                                          | 145                                  | 70                | 26                | 1714                            | 562               | 119              | 23                                             | 70                         | 9                                  | 17                         |
| Irlam (Long Lodge) ...        | 24               | 196                                          | 143                                  | 70                | 40                | 1181                            | 449               | 256              | 10                                             | 40                         | 7                                  | 308                        |
| Irlam (Irlam Hall) ...        | 24               | ...                                          | 143                                  | 78                | 27                | 1188                            | 483               | 149              | 4                                              | 23                         | 28                                 | 351                        |
| Kearsley ... ..               | 48               | 124                                          | 194                                  | 141               | 94                | 2645                            | 695               | 203              | 52                                             | 241                        | 1                                  | 5                          |
| Kirkham ... ..                | 48               | 68                                           | 139                                  | 105               | 73                | 1297                            | 638               | 455              | 10                                             | 47                         | 32                                 | 90                         |
| Lathom and Burscough          | 47               | 101                                          | 79                                   | 46                | 47                | 659                             | 190               | 133              | 11                                             | 31                         | 3                                  | 78                         |
| Leyland (Brad. St.) ...       | 22               | 124                                          | 5                                    | 7                 | 14                | 17                              | 50                | 132              | 10                                             | 22                         | 13                                 | 229                        |
| Leyland (Quin St.) ...        | 45               | ...                                          | 155                                  | 140               | 115               | 1725                            | 1129              | 1133             | 8                                              | 39                         | 9                                  | 202                        |
| Litherland ... ..             | 48               | 203                                          | 218                                  | 105               | 151               | 2104                            | 769               | 865              | 12                                             | 52                         | 1                                  | 5                          |
| Littleborough... ..           | 48               | 133                                          | 176                                  | 95                | 93                | 2369                            | 618               | 425              | 13                                             | 45                         | ...                                | ...                        |
| Little Lever ... ..           | 48               | 67                                           | 93                                   | 47                | 31                | 1381                            | 502               | 337              | 28                                             | 97                         | 30                                 | 202                        |
| Longridge ... ..              | 46               | 49                                           | 116                                  | 94                | 134               | 871                             | 488               | 432              | 15                                             | 49                         | 18                                 | 450                        |
| Milnrow ... ..                | 48               | 103                                          | 117                                  | 48                | 60                | 1483                            | 473               | 354              | 8                                              | 30                         | 2                                  | 8                          |
| Morecambe and Heysham (B)     | 47               | 245                                          | 208                                  | 112               | 90                | 1804                            | 842               | 589              | 30                                             | 109                        | ...                                | ...                        |
| (d) Norden ... ..             | 36               | 41                                           | 56                                   | 25                | 33                | 670                             | 348               | 346              | 13                                             | 74                         | 9                                  | 18                         |
| Ormskirk ... ..               | 47               | 99                                           | 139                                  | 72                | 83                | 1849                            | 550               | 486              | 19                                             | 56                         | ...                                | ...                        |
| Orrell No. 1 ... ..           | 48               | 88                                           | 121                                  | 63                | 83                | 1219                            | 607               | 833              | 17                                             | 44                         | 23                                 | 62                         |
| (e) Orrell No. 2. ... ..      | 8                | ...                                          | 22                                   | 10                | 4                 | 88                              | 44                | 19               | 3                                              | 4                          | 2                                  | 2                          |
| Oswaldtwistle ... ..          | 46               | 115                                          | 105                                  | 61                | 60                | 883                             | 534               | 506              | 12                                             | 35                         | 13                                 | 228                        |
| „ Belthorn ... ..             | ...              | ...                                          | ...                                  | ...               | ...               | ...                             | ...               | ...              | ...                                            | ...                        | ...                                | ...                        |
| Padiham ... ..                | 47               | 146                                          | 117                                  | 80                | 61                | 1073                            | 723               | 415              | 5                                              | 39                         | 7                                  | 9                          |
| (f) Penketh ... ..            | 48               | 18                                           | 55                                   | 22                | 24                | 722                             | 197               | 86               | 4                                              | 30                         | 9                                  | 68                         |
| Poulton-le-Fylde ...          | 24               | 25                                           | 47                                   | 36                | 49                | 396                             | 199               | 373              | 7                                              | 23                         | 20                                 | 35                         |
| Preesall ... ..               | 24               | 24                                           | 51                                   | 33                | 62                | 451                             | 311               | 592              | 6                                              | 17                         | 16                                 | 155                        |
| Preseot ... ..                | 95               | 156                                          | 374                                  | 227               | 178               | 2573                            | 478               | 362              | 92                                             | 290                        | 22                                 | 115                        |
| Prestwich ... ..              | 46               | 271                                          | 133                                  | 34                | 22                | 1406                            | 267               | 100              | 2                                              | 9                          | ...                                | ...                        |
| Rishton ... ..                | 49               | 69                                           | 73                                   | 33                | 23                | 875                             | 257               | 118              | 11                                             | 59                         | 12                                 | 110                        |
| Sabden ... ..                 | 23               | 14                                           | 21                                   | 18                | 28                | 182                             | 157               | 250              | 3                                              | 6                          | 10                                 | 38                         |
| Skelmersdale ... ..           | 48               | 118                                          | 99                                   | 60                | 52                | 1141                            | 609               | 465              | 7                                              | 49                         | 20                                 | 158                        |
| Standish ... ..               | 48               | 89                                           | 136                                  | 96                | 80                | 1404                            | 819               | 632              | 28                                             | 141                        | 64                                 | 129                        |
| Thornton ... ..               | 48               | 108                                          | 97                                   | 73                | 121               | 919                             | 525               | 884              | 21                                             | 136                        | ...                                | ...                        |



Summary of work done at Centres—*continued.*

| Name of Child Welfare Centre. | No. of Sessions. | No. of Births Notified during the 12 months. | No. of individual children attending. |                    |                   | No. of attendances by children. |                    |                   | No. of attendances by expectant mothers.       |                            | No. of attendances by other women. |                            |
|-------------------------------|------------------|----------------------------------------------|---------------------------------------|--------------------|-------------------|---------------------------------|--------------------|-------------------|------------------------------------------------|----------------------------|------------------------------------|----------------------------|
|                               |                  |                                              | Under 1 year old.                     | From 1—2 yrs. old. | Over 2 years old. | Under 1 year old.               | From 1—2 yrs. old. | Over 2 years old. | No. of individual expectant mothers attending. | No. of actual attendances. | No. of individual women attending. | No. of actual attendances. |
| Tottington ... ..             | 47               | 84                                           | 68                                    | 44                 | 34                | 965                             | 499                | 263               | 4                                              | 13                         | ...                                | ...                        |
| Trawden ... ..                | 48               | 19                                           | 32                                    | 25                 | 32                | 396                             | 159                | 241               | ...                                            | ...                        | 7                                  | 11                         |
| Ulverston ... ..              | 48               | 125                                          | 185                                   | 136                | 156               | 1774                            | 1105               | 1376              | 65                                             | 366                        | ...                                | ...                        |
| Urmston No. 1 (Davyhulme)     | 44               | 63                                           | 74                                    | 40                 | 45                | 885                             | 265                | 289               | 6                                              | 27                         | 28                                 | 99                         |
| Urmston No. 2. (Urmston)      | 48               | 135                                          | 135                                   | 66                 | 115               | 1356                            | 539                | 490               | 12                                             | 43                         | 38                                 | 82                         |
| Urmston No. 3 (Flixton)       | 43               | 157                                          | 217                                   | 89                 | 59                | 2653                            | 715                | 813               | 27                                             | 190                        | 20                                 | 216                        |
| Walkden ... ..                | 48               | 141                                          | 177                                   | 65                 | 35                | 1657                            | 309                | 147               | 18                                             | 31                         | 42                                 | 109                        |
| Waterloo ... ..               | 27               | 32                                           | 64                                    | 38                 | 45                | 497                             | 267                | 232               | 7                                              | 12                         | 55                                 | 89                         |
| Whalley ... ..                | 48               | 10                                           | 47                                    | 36                 | 50                | 558                             | 269                | 299               | 8                                              | 68                         | 25                                 | 58                         |
| Whitefield ... ..             | 44               | 121                                          | 157                                   | 101                | 85                | 1424                            | 747                | 434               | 14                                             | 61                         | ...                                | ...                        |
| Whitworth (Faet)              | 48               | 116                                          | 103                                   | 62                 | 51                | 1685                            | 787                | 608               | 20                                             | 83                         | 10                                 | 33                         |
| TOTAL ... ..                  | 2968             | 6358                                         | 7994                                  | 4752               | 4608              | 82100                           | 34907              | 30220             | 1179                                           | 5391                       | 1036                               | 5751                       |

(a) Clifton Child Welfare Centre transferred to the Swinton and Pendlebury Urban District Council as from the 1st April, 1933.

(b) Failsworth Child Welfare Centre taken over from the Failsworth Urban District Council, 1st April, 1933.

(c) Great Crosby Child Welfare Centre opened 4th October, 1933.

(d) Norden Child Welfare Centre transferred to the Rochdale County Borough as from 1st October, 1933.

(e) Orrell No. 2 Child Welfare Centre opened 23rd October, 1933.

(f) Penketh Child Welfare Centre opened 10th January, 1933.

Supply of Milk and other Foodstuffs.—There is still very much unemployment in this part of the country, and consequently there is a large quantity of milk or milk products supplied free, at, or through, the Welfare Centres to necessitous nursing mothers, women in the last few months of pregnancy, and infants and young children; during the year £11,800 was so spent. This is a slight increase on the previous year's expenditure. The conditions under which a free supply is given are those of medical necessity coupled with the inability to purchase the necessary foodstuffs.

During the year 1933, 934,972 pints of fresh milk were supplied directly to the recipients by milk purveyors, and the following tabular statement shows the amount of dried milks, cod liver oil, virol, etc., supplied at the Centres:—

| No.    | Units.                  | Article of Foodstuff.  | Cost. |    |    |
|--------|-------------------------|------------------------|-------|----|----|
|        |                         |                        | £     | s. | d. |
| 49,530 | 1 lb. packets           | Cow and Gate           | 3,328 | 1  | 0  |
| 20,811 | 1 lb. cartons           | Cod Liver Oil & Malt   | 568   | 16 | 6  |
| 9,290  | 8 oz. tins              | Virol                  | 465   | 0  | 0  |
| 7,400  | 1 lb. tins              | Ostermilk No. 1        | 567   | 5  | 8  |
| 4,388  | 1 lb. bottles           | Horliek's Malted Milk  | 551   | 6  | 10 |
| 3,854  | 1 lb. packets           | Lactogen               | 274   | 11 | 4  |
| 3,264  | 8 oz. bottles           | Egg Emulsion           | 95    | 4  | 0  |
| 3,047  | 8 oz. tins              | Ovaltine               | 191   | 1  | 7  |
| 2,886  | 1 lb. packets           | Ambrosia               | 218   | 5  | 8  |
| 2,733  | 1 lb. packets           | Hemolac                | 207   | 7  | 10 |
| 2,035  | 1 lb. tins              | Ostermilk No. 2        | 154   | 6  | 8  |
| 1,991  | 8 oz. and 1 lb. bottles | Cod Liver Oil Emulsion | 87    | 6  | 9  |
| 1,886  | 4 oz. bottles           | Cod Liver Oil          | 39    | 18 | 6  |
| 1,876  | 4 oz. and 8 oz. bottles | Aberdeen Emulsion      | 70    | 8  | 4  |
| 1,583  | 7 oz. tins              | Virolax                | 70    | 17 | 3  |
| 1,523  | 1 lb. tins              | Trufood Humanised      | 153   | 13 | 10 |
| 1,309  | 1 lb. tins              | Colaet                 | 82    | 1  | 8  |
| 808    | 1 lb. bottles           | Mellin's Food          | 87    | 3  | 11 |

Dried Milks, Cod Liver Oil, etc.—*continued*.

| No. | Units.        | Article of Foodstuff.                                | Cost.  |    |    |
|-----|---------------|------------------------------------------------------|--------|----|----|
|     |               |                                                      | £      | s. | d. |
| 805 | 1 lb. tins    | Trufood (F.C.)                                       | 60     | 11 | 8  |
| 562 | 1 lb. packets | Chocolate Milk                                       | 42     | 18 | 8  |
| 522 | 8 oz. tins    | Maltoline                                            | 14     | 12 | 0  |
| 332 | 4 oz. tins    | Lactagol                                             | 19     | 6  | 3  |
| 300 | 1 lb. jars    | Cod Liver Oil and Malt with Parrish's Chemical Food. | 12     | 6  | 0  |
| 239 | 1 lb. jars    | Vitamalt                                             | 16     | 5  | 7  |
| 216 | 8 oz. bottles | A. and D. Emulsion                                   | 10     | 16 | 0  |
| 125 | 1 lb. tins    | Vitasac                                              | 14     | 3  | 0  |
| 72  | 8 oz. bottles | Cod Liver Oil with Parrish's Chemical Food           | 1      | 17 | 6  |
| 39  | 1 lb. tins    | New Zealand Cream                                    | 4      | 11 | 4  |
| 14  | 8 oz. tins    | Virol and Milk                                       | 0      | 15 | 2  |
| 12  | 1 lb. tins    | Almata                                               | 1      | 6  | 0  |
| 9   | 1 lb. tins    | Jecomalt                                             | 0      | 15 | 9  |
|     |               |                                                      | £7,413 | 2  | 3  |

In this statement most of the foods mentioned are sold at cost price. In necessitous cases the food is supplied either free of cost or at half-price. The total loss on the foods supplied amounted to £1,635 5s. 5d., as compared with a total loss in the previous year of £1,469 5s. 3d.

**ANTE-NATAL CARE.**—The County Council has only one Specialist Ante-Natal Clinic, which is held at the Litherland Child Welfare Centre, but there are arrangements with the following Local Authorities whereby persons resident in the adjacent portions of the County area may attend at the Ante-Natal Clinics established by these Authorities:—Chorley, Eccles, Rochdale and Widnes. There is also a separate Ante-Natal session in connection with the Formby Child Welfare Centre which is attended by the Assistant County Medical Officer for the district. During the year 846 attendances were made at these Ante-Natal Clinics by 272 individual expectant mothers. In the rest of the County, expectant mothers may be seen by the Assistant County Medical Officers at the Child Welfare Centres. Expectant mothers who book beds in Maternity Homes generally attend the Maternity Home for examination some time before admission for the confinement, and in some cases in-patient ante-natal treatment is provided.

A considerable amount of useful work is done by the County Health Visitors. In a scattered country district it is not practicable for expectant mothers to make long journeys to Clinics, but it would be a mistake to draw the inference that such women receive no attention. In addition to the private doctor and the local District Nurse, the County Health Visitor is now well known in the district and is soon in touch with anyone who wishes to see her, thanks to the increasing use of the motor car as a means of transport. As a result, much good advice can be given and administrative action taken without the intervention of the *ad hoc* Clinic.

**KEARSLEY CENTRE.**

Each Thursday afternoon a time is reserved at the Kearsley Centre for the examination and treatment of expectant mothers. Obstetric histories are taken and a systematic examination of each case is made. The examination includes the determination of blood pressure and the examination of urine as well as bi-manual examination and instrumental pelvic mensuration. Use is also made of "trial labour" near term.

With regard to treatment, abnormal conditions such as carious teeth, bacilluria, recurrent sore throats, etc., are treated at the Centre, whereas more serious matters such as contracted pelvis, severe cardiac disease, and cases of albuminuria with fluctuating blood pressures are referred to the County Hospital service.

At this Centre special stress is laid on the hygiene of gestation and advice given which has as its goal the maintenance of health and the production of a normal physiological parturition.

During the year 1933, 52 expectant mothers attended the Kearsley Centre. Of these 21 were primiparæ and 31 multiparæ. Altogether 241 attendances were made.

The following list shows the abnormal conditions found amongst these cases:—

|                          |     |     |     |     |     |     |    |                       |
|--------------------------|-----|-----|-----|-----|-----|-----|----|-----------------------|
| Septic Vaginal Discharge | ... | ... | ... | ... | ... | ... | 17 | } 24 cases of Sepsis. |
| Pyorrhœa                 | ... | ... | ... | ... | ... | ... | 1  |                       |
| Mastitis                 | ... | ... | ... | ... | ... | ... | 2  |                       |
| Ulceration of Cervix     | ... | ... | ... | ... | ... | ... | 1  |                       |
| Ulcer leg                | ... | ... | ... | ... | ... | ... | 1  |                       |
| Sore throat              | ... | ... | ... | ... | ... | ... | 1  |                       |
| Cystitis                 | ... | ... | ... | ... | ... | ... | 1  |                       |
| Epilepsy                 | ... | ... | ... | ... | ... | ... | 1  |                       |
| Varicose Veins           | ... | ... | ... | ... | ... | ... | 12 |                       |
| Backache                 | ... | ... | ... | ... | ... | ... | 9  |                       |
| Carious teeth            | ... | ... | ... | ... | ... | ... | 14 |                       |



|                          |     |     |     |     |     |     |     |    |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|----|
| Constipation (obstinate) | ... | ... | ... | ... | ... | ... | ... | 13 |
| Anæmia ...               | ... | ... | ... | ... | ... | ... | ... | 6  |
| Emesis (severe) ...      | ... | ... | ... | ... | ... | ... | ... | 3  |
| Swelling of feet ...     | ... | ... | ... | ... | ... | ... | ... | 9  |
| Bronchitis ...           | ... | ... | ... | ... | ... | ... | ... | 6  |
| Abnormal Urine—          |     |     |     |     |     |     |     |    |
| Albumin ...              | 7   | }   |     |     |     |     |     |    |
| Mucus ...                | 6   |     | ... | ... | ... | ... | ... | 14 |
| Bacilluria ...           | 1   |     |     |     |     |     |     |    |
| Incontinence Urine ...   | ... | ... | ... | ... | ... | ... | ... | 1  |
| Abnormal Blood Pressure  | ... | ... | ... | ... | ... | ... | ... | 5  |
| Fainting ...             | ... | ... | ... | ... | ... | ... | ... | 2  |
| Heart Disease ...        | ... | ... | ... | ... | ... | ... | ... | 4  |
| Cramps ...               | ... | ... | ... | ... | ... | ... | ... | 5  |
| Abnormal Pelvis ...      | ... | ... | ... | ... | ... | ... | ... | 1  |
| Hæmorrhoids ...          | ... | ... | ... | ... | ... | ... | ... | 3  |
| Enlarged Thyroid Gland   | ... | ... | ... | ... | ... | ... | ... | 5  |
| Vertigo ...              | ... | ... | ... | ... | ... | ... | ... | 1  |
| Threatened abortion ...  | ... | ... | ... | ... | ... | ... | ... | 1  |

The number of expectant mothers attending this Clinic amounts to roughly 40 per cent. of the number of births in the district.

As far as practicable post-natal attention has been given to these mothers for three months after parturition.

#### BROMLEY CROSS ANTE-NATAL CENTRE.

Similar work as at Kearsley is carried out each Monday afternoon at the Bromley Cross Centre. During the year 1933, 30 expectant mothers were examined and 102 attendances made.

The following is a list of the abnormal conditions found :—

|                           |     |     |     |     |     |     |     |    |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|----|
| Septic Vaginal Discharge  | ... | ... | ... | ... | ... | ... | ... | 17 |
| Purulent Otitis Media ... | ... | ... | ... | ... | ... | ... | ... | 1  |
| Pyorrhœa ...              | ... | ... | ... | ... | ... | ... | ... | 1  |
| Carious Teeth ...         | ... | ... | ... | ... | ... | ... | ... | 6  |
| Mastitis ...              | ... | ... | ... | ... | ... | ... | ... | 1  |
| Frequent Sore Throats ... | ... | ... | ... | ... | ... | ... | ... | 1  |
| Femoral Hernia ...        | ... | ... | ... | ... | ... | ... | ... | 1  |
| Emesis ...                | ... | ... | ... | ... | ... | ... | ... | 8  |
| Obstinate Constipation    | ... | ... | ... | ... | ... | ... | ... | 8  |
| Hæmorrhoids ...           | ... | ... | ... | ... | ... | ... | ... | 2  |
| Enlarged Thyroid Gland    | ... | ... | ... | ... | ... | ... | ... | 7  |
| Backache ...              | ... | ... | ... | ... | ... | ... | ... | 5  |
| Varicose Veins ...        | ... | ... | ... | ... | ... | ... | ... | 5  |
| Swelling of feet ...      | ... | ... | ... | ... | ... | ... | ... | 8  |
| Anæmia ...                | ... | ... | ... | ... | ... | ... | ... | 5  |
| Heart Disease ...         | ... | ... | ... | ... | ... | ... | ... | 3  |
| Vertigo ...               | ... | ... | ... | ... | ... | ... | ... | 1  |
| Abnormal Pelvis ...       | ... | ... | ... | ... | ... | ... | ... | 2  |
| Fainting ...              | ... | ... | ... | ... | ... | ... | ... | 1  |
| Abnormal Urine—           |     |     |     |     |     |     |     |    |
| Mucus ...                 | 4   | }   |     |     |     |     |     |    |
| Albumin ...               | 1   |     | ... | ... | ... | ... | ... | 7  |
| Bacilluria ...            | 2   |     |     |     |     |     |     |    |
| Bronchitis ...            | ... | ... | ... | ... | ... | ... | ... | 1  |
| Cramps ...                | ... | ... | ... | ... | ... | ... | ... | 4  |

OPHTHALMIA NEONATORUM.—All cases of Ophthalmia Neonatorum are under observation and care from the onset, and of late years there has been a welcome reduction in the number of those cases which ultimately become blind.

| Year.    | Total number of eye cases reported to the Local Supervising Authority under the Midwives Acts. | Total number of cases notified as Ophthalmia Neonatorum. |
|----------|------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1924 ... | 328                                                                                            | 154                                                      |
| 1925 ... | 299                                                                                            | 147                                                      |
| 1926 ... | 344                                                                                            | 172                                                      |
| 1927 ... | 381                                                                                            | 211                                                      |
| 1928 ... | 366                                                                                            | 191                                                      |
| 1929 ... | 354                                                                                            | 164                                                      |
| 1930 ... | 312                                                                                            | 169                                                      |
| 1931 ... | 272                                                                                            | 120                                                      |
| 1932 ... | 238                                                                                            | 120                                                      |
| 1933 ... | 275                                                                                            | 129                                                      |

The duty of midwives to report cases where babies' eyes are affected remains unaltered, the Midwives Act Committee of the County Council being the Local Supervising Authority for this purpose.

Inspection of Registered Nursing Homes.—The Assistant County Medical Officers undertook during the year the inspection of 49 nursing homes, the results being reported to the Public Health Department of the County Council.

Provision for Maternity Cases.—During the past year the amount paid in doctors' fees in cases where the midwives summoned help was £4,431 10s. 0d., of which £333 10s. 0d. is estimated to be recoverable from the patients. Arrangements are in force for receiving pregnant women, in cases where there is any difficulty, present or anticipated, or where the surroundings at home are not suitable for a confinement, at the following institutions :—

Ashton-under-Lyne Infirmary.  
 Ashton-under-Lyne Lake Hospital.  
 Blackburn Corporation (Springfield) Maternity Home.  
 Blackpool Corporation Maternity Home.  
 Bolton Corporation (Haslam) Maternity Home.  
 Bolton Union Townleys Hospital.  
 Bootle Corporation Maternity Home.  
 Burnley Corporation (Bank Hall) Maternity Home.  
 Burnley Municipal Hospital.  
 Chorley Hospital.  
 Chorley Public Assistance Hospital.  
 Colne Hospital (Corporation).  
 Davyhulme Park Hospital.  
 Fulwood Sharoe Green Union Maternity Home.  
 Leigh Corporation (The Firs) Maternity Home.  
 Liverpool Maternity Hospital.  
 Liverpool St. Hilda's Diocesan Maternity Home.  
 Lytham Hospital.  
 Nelson Corporation (Fern Lea).  
 Oldham Corporation (Greenacres).  
 Preston Royal Infirmary.  
 Radcliffe Corporation (Bealey).  
 Rochdale Union, Birch Hill.  
 St. Annes-on-Sea War Memorial Hospital.  
 Southport Corporation (Christiana Hartley).  
 Stretford Memorial Hospital.  
 Warrington Corporation (Borough General—Whitecross).  
 Warrington Corporation (Lateford).  
 Whiston Infirmary.  
 Widnes Ethel Gossage Maternity Home.

During the past year the total number of women admitted was 235. This compares with 181, 198, 175, 145, and 56 for the previous five years. In each case an enquiry is made by the Health Visitor into the economic and sanitary circumstances of the homes. During the year the payment for these patients amounted to £1,983 4s. 10d., of which £654 6s. 9d. was recovered from the patients.

THE CARE OF DEBILITATED CHILDREN UNDER SCHOOL AGE.—There has been no change in the method of caring for these children since the last report was issued. Facilities exist for their inspection and treatment at Child Welfare Centres, School Clinics, Orthopædic Clinics, Ophthalmic Clinics, Dental Clinics, and at hospitals for the operative treatment of tonsils and adenoids. They are usually seen by the School Nurses and Health Visitors in the course of home visits, and in the mining and manufacturing districts many of them are to be found in school from the age of three onwards. There are now 39 Nursery Classes in the Infant Schools.

During 1933 the School Nurses, as Health Visitors, made 92,007 visits to homes, etc., and during this year 4,608 children between two and five years of age made 30,220 attendances at the Child Welfare Centres.

Children under the age of three years, and, in exceptional circumstances, from three to five years, can be provided under the County Council Maternity and Child Welfare scheme with fresh or dried milk, cod liver oil, or Virol, at cost price, less than cost price, or free, when they are certified by the Medical Officers in charge of the Child Welfare Centres to require extra nourishment.

In districts where the County Council is the Authority responsible for Maternity and Child Welfare, no difference is made in practice in the facilities provided for the care and treatment of school children and for those under school age, and the following tables give some idea as to the extent to which these facilities are used :—



TREATMENT AT SCHOOL CLINICS OF CHILDREN UNDER FIVE YEARS  
OF AGE WHO ARE NOT ATTENDING SCHOOL.

MINOR AILMENTS.

| Disease or Defect. |       |          |           |             |            |            |                |                | No. of individual<br>Children treated. | No. of Attendances made<br>for Treatment. |
|--------------------|-------|----------|-----------|-------------|------------|------------|----------------|----------------|----------------------------------------|-------------------------------------------|
| Ringworm.          |       | Scabies. | Impetigo. | Other Skin. | Minor Eye. | Minor Ear. | Miscellaneous. | Total Defects. |                                        |                                           |
| Scalp.             | Body. |          |           |             |            |            |                |                |                                        |                                           |
| 20                 | 5     | 5        | 118       | 149         | 179        | 85         | 454            | 1,015          | 872                                    | 2,092                                     |

In addition, 377 individual children made 604 attendances at the various Minor Ailment Clinics for inspection by the Assistant County Medical Officers and advice was given or treatment indicated in respect of 409 defects found.

DEFECTIVE VISION AND SQUINT.

| Errors of Refraction. | Other Defect or Disease of the eye. | Individual Children. | No. of Attendances | Glasses prescribed. | Glasses obtained. | Recom-<br>mended<br>treatment<br>other than<br>by glasses. |
|-----------------------|-------------------------------------|----------------------|--------------------|---------------------|-------------------|------------------------------------------------------------|
| 199                   | 43                                  | 250                  | 503                | 141                 | 129               | 70                                                         |

Dental treatment is also available for expectant and nursing mothers and for children under school age, and the following table shows the work done for these cases in the School Dental Clinics during 1933 :—

DENTAL TREATMENT.

| Children under 5 years and not at School. |                          |                  |                     |                                                |                   | Expectant and Nursing Mothers. |                          |                  |                     |                                                |                   |
|-------------------------------------------|--------------------------|------------------|---------------------|------------------------------------------------|-------------------|--------------------------------|--------------------------|------------------|---------------------|------------------------------------------------|-------------------|
| Individual Children Treated.              | No. of Attendances made. | No. of Fillings. | No. of Extractions. | No. of Administrations of General Anæsthetics. | Other Operations. | Individuals Treated.           | No. of Attendances made. | No. of Fillings. | No. of Extractions. | No. of Administrations of General Anæsthetics. | Other Operations. |
| 492                                       | 682                      | 104              | 1,270               | 152                                            | 484               | 408                            | 684                      | 67               | 1,939               | 191                                            | 203               |

**Local Child Welfare Schemes.**—The following is a list of the Child Welfare Centres which have been established by Town and Urban District Councils :—

| District.                | Address of Child Welfare Centre.                                                                          | Day and Time Open.                                                                                                                                               | Health Visitor Appointed.                                                      |
|--------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Accrington (B) ... ..    | Ambulance Drill Hall, Bull Bridge...<br>Municipal Maternity Home, Rough Lee                               | Daily, 9—11, Thursday, 3—5<br>Ante-natal Clinic Friday, 10—12                                                                                                    | One Senior Health Visitor; three Health Visitors who also act as School Nurses |
| Ashton-in-Makerfield ... | Congregational Sunday School, Gerard Street                                                               | Thursday, 2—4 ...                                                                                                                                                | Whole time                                                                     |
| Ashton-under-Lyne (B)    | Enville House, Scotland Street ...<br>Richmond House, Richmond Street<br>Ormonde Street School, Hurst ... | Tuesday & Wednesday, 2—4.<br>Monday, 10—12<br>Thursday, 2—4<br>Wednesday, 2—4<br>Ante-natal Clinic held each Friday alternately at Enville and Richmond centres. | Whole time (3).                                                                |
| Bacup (B) ... ..         | Rochdale Road ... ..                                                                                      | Daily, 9—5. ...                                                                                                                                                  | Two Health Visitors who also act as School Nurses                              |
| Brierfield ... ..        | Town Hall Annexe ... ..                                                                                   | Tuesday, 3—5.30 ...<br>Wednesday, 2.30—5.30<br>Thursday, 3—5<br>Friday, 3—6.30<br>Ante-natal Meetings, alternate Thursdays.                                      | Whole time                                                                     |
| Chadderton ... ..        | Washbrook Primitive Methodist School<br>Town Hall, Middleton Road ...                                     | Monday, 2—5 ...<br>Tuesday and Thursday, 2—5                                                                                                                     | Whole time (2)                                                                 |
| Chorley (B) ... ..       | Eaves Lane Congregational School<br>St. George's Street School ... ..<br>Public Health Department ... ..  | Wednesday, 2.30—4 ...<br>Thursday, 2.30—4<br>Ante-natal Clinic, first Wednesday in each month, 10—12                                                             | Whole time (2)                                                                 |
| Clitheroe (B) ... ..     | The Castle ... ..                                                                                         | Fortnightly—<br>Tuesday, 2                                                                                                                                       | Health Visitor also acts as School Nurse                                       |
| Colne (B) ... ..         | Bank House, Albert Road ... ..                                                                            | Wednesday and Thursday, 9—1 and 2—5<br>Ante-natal Clinic at Maternity Home, Wednesday and Friday, 2—5.                                                           | Whole time (1) ; part time (1).                                                |
| Darwen (B) ... ..        | 43, Bolton Road ... ..                                                                                    | Daily, 9—10, 4.30—5.<br>Tuesday and Thursday 2.30—5<br>Ante-natal Clinic daily at Bolton Rd., 9—10                                                               | Whole time (2)                                                                 |
| Denton ... ..            | Greenfield Institute ... ..<br>Peel Street ... ..                                                         | Wednesday, 2.30—5<br>Monday, 2—5 ... ..                                                                                                                          | Whole time                                                                     |
| Eccles (B) ... ..        | Green Lane, Patricroft ... ..                                                                             | Monday, Tuesday, Wednesday and Thursday, 2—4.30<br>Ante-natal Meetings, alternate Fridays, 2.30—5.                                                               | One Senior Health Visitor; four Health Visitors who also act as School Nurses  |
| Farnworth ... ..         | Wesley School, Market Street ...                                                                          | Monday, Wednesday and Friday, 2.30—4.30<br>Ante-natal Clinic held at Greenbank Nursery School fortnightly.                                                       | Whole time (2)                                                                 |
| Golborne ... ..          | Methodist School, High Street and<br>Methodist School, Newton Road                                        | Alternate Thursdays, 2.30—4.30                                                                                                                                   | Whole time                                                                     |
| *Great Harwood ...       | Mercer Hall ... ..                                                                                        | Wednesday, 2.30—4.30                                                                                                                                             | Part time                                                                      |
| Haslingden (B) ...       | Old Wesleyan School, Manchester Road                                                                      | Alternate Thursdays, 2.30—4.30                                                                                                                                   | Health Visitor also acts as School Nurse                                       |
| Heywood (B) ... ..       | Hornby Street School ... ..                                                                               | Thursday, 2—5 ...<br>Ante-natal Clinic held weekly.                                                                                                              | Three Health Visitors, who also act as School Nurses                           |
| Hindley ... ..           | White House, Liverpool Road ...                                                                           | Daily, 2—5 ... ..<br>Ante-natal Clinic, Wednesday, 2—3                                                                                                           | Whole time                                                                     |
| Horwich ... ..           | Public Hall ... ..                                                                                        | Daily, 9—10 ; Wednesday and Thursday, 3—5<br>Ante-natal Clinic, Tuesday, 10                                                                                      | Whole time (2)                                                                 |

\* Included in the County Council Maternity and Child Welfare scheme from 1st April, 1934.



LIST OF LOCAL CHILD WELFARE CENTRES.—*continued.*

| District.                 | Address of Child Welfare Centre.                                                                                                    | Day and Time Open.                                                                                                                                                              | Health Visitor Appointed.                            |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Ince-in-Makerfield ...    | Council Offices ... ..                                                                                                              | Tuesday and Thursday, 2—4                                                                                                                                                       | Whole time (2)                                       |
| Lancaster (B) ... ..      | Thurnham House, Thurnham Street                                                                                                     | Wednesday and Thursday, 2—4<br>Ante-natal Clinic, Friday, 2—4                                                                                                                   | Four Health Visitors, who also act as School Nurses  |
| Leigh (B) ... ..          | Ryelands, Skerton ... ..<br>Stone House, St. Helens Road ...                                                                        | Monday, 2—4<br>Monday, 2—4 ... ..<br>Ante-natal Clinic, Monday, 2—4                                                                                                             | Four Health Visitors, who also act as School Nurses  |
|                           | Nangreaves Street ... ..<br>Coal Pit Lane ... ..                                                                                    | Wednesday, 2—4<br>Wednesday, 2—4                                                                                                                                                |                                                      |
| Lytham Saint Anne's (B)   | Public Baths, Lytham ... ..<br>Public Offices, South Drive, St. Anne's                                                              | Thursday, 2.30—5 ...<br>Tuesday, 2.30—5                                                                                                                                         | Two Health Visitors, who also act as School Nurses   |
| Middleton (B) ... ..      | Health Department, Durnford Street<br>Reading Room, Middleton Junction                                                              | Thursday, 2—5; alternate Wednesdays 2—5<br>Alternate Wednesdays, 2—5                                                                                                            | Three Health Visitors, who also act as School Nurses |
| Mossley (B) ... ..        | Wesleyan School, Stamford Road ...                                                                                                  | Wednesday, 3 ... ..                                                                                                                                                             | Whole time                                           |
| Nelson (B) ... ..         | 9, Carr Road ... ..                                                                                                                 | Wednesday, 2.30—5 ...                                                                                                                                                           | Whole time (2); part time (1)                        |
| Newton-in-Makerfield ...  | Town Hall, Earlestown ... ..<br>Town Hall, Newton-le-Willows ...                                                                    | Tuesday, 2.30—4.30 ...<br>Monday, 2.30—4                                                                                                                                        | Whole time                                           |
| Radeliffe ... ..          | Close Park ... ..                                                                                                                   | Tuesday and Thursday, 1.30—4.30.<br>Ante-natal Clinic, Thursday, 10—12                                                                                                          | Three Health Visitors who also act as School Nurses  |
| Ramsbottom ... ..         | Technical School, Stubbins Lane ...<br>Hill Street, Summerseat ... ..                                                               | Tuesday, 2.30 ... ..<br>Alternate Wednesdays, 2.30                                                                                                                              | Whole time                                           |
| Rawtenstall (B) ... ..    | Council School, Cloughfold ... ..<br>Council School, Goodshaw ... ..                                                                | Tuesday, 2.30—4.30 ...<br>Wednesday, 2.30—4 ...                                                                                                                                 | Two Health Visitors, who also act as School Nurses   |
|                           | Council School, Whitewell Bottom                                                                                                    | Thursday, 2.30—4                                                                                                                                                                |                                                      |
| Royton ... ..             | Free Library, Rochdale Road ...                                                                                                     | Wednesday, 2—5 ...                                                                                                                                                              | Whole time                                           |
| Stretford (B) ... ..      | 38/40, Talbot Road, Old Trafford ...<br>Sixth Street, Trafford Park ... ..<br>Public Hall ... ..<br>Stretford Memorial Hospital ... | Monday and Thursday 2—4.30<br>Tuesday, 2.30—4<br>Wednesday, 2.30—4<br>Ante-natal Clinic, monthly                                                                                | Whole time (1); part time (3)                        |
| Swinton and Pendlebury    | Council Offices, Swinton ... ..<br>Beechfield House, Folly Lane, Swinton                                                            | Thursday and Friday, 2—5.<br>Ante-natal Clinic, every Monday, except the first Monday in the month, 2—4.<br>Tuesday, 2—5.<br>Ante-natal Clinic, first Monday in the month, 2—4. | Whole time (3)                                       |
| Tyldesley ... ..          | Parish Rooms, Clifton ... ..<br>Technical School, Tyldesley ... ..<br>Independent Methodist Church, Manchester Road, Astley.        | Wednesday, 2—5 ...<br>Thursday, 2—4.30 ...                                                                                                                                      | Whole time                                           |
| *Upholland ... ..         | Nil ... ..                                                                                                                          | Tuesday, 2—3.30<br>... ..                                                                                                                                                       | District Nurse acts as Health Visitor                |
| Waterloo-with-Seaforth... | The Clinic, Prince Street, Waterloo                                                                                                 | Monday, 2.30—4.30<br>Wednesday, 10.30—12.30 and 2.30—4.30<br>Ante-natal Clinic, Friday, 10.30—12.30                                                                             | Whole time (2)                                       |
| Westhoughton ... ..       | Sunnybank, Market Street ... ..                                                                                                     | Tuesday and Thursday, 2.30—4.30                                                                                                                                                 | Whole time (2)                                       |
| Widnes (B) ... ..         | Town Hall ... ..<br>Cooper Hall ... ..<br>Mill Brow ... ..<br>Halebank ... ..<br>Town Hall ... ..                                   | Consultations. Treatment<br>Mon., 1.30 } Daily<br>Tues., 1.30 } 9—5<br>Thurs., 1.30 } Wed., 9—12<br>Wed., 9—12 }<br>Ante-natal Clinic, Wednesday 1.30—3.30                      | Seven Health Visitors, who also act as School Nurses |

\* Included in the County Council Maternity and Child Welfare scheme from 1st October, 1933.

**ANTE-NATAL WORK BY LOCAL AUTHORITIES.**—In 31 of the 37 districts where the local Health Authorities are responsible for child welfare, ante-natal work, it is stated in the local reports, is carried out to a greater or lesser degree. Medical Officers of Health of the following districts state that ante-natal clinics are held or ante-natal advice is given :—Accrington (B), Ashton-under-Lyne (B), Brierfield, Chadderton, Chorley (B), Clitheroe (B), Colne (B), Darwen (B), Denton, Eccles (B), Farnworth, Golborne, Great Harwood, Heywood (B), Hindley, Horwich, Lancaster (B), Leigh (B), Lytham St. Anne's (B), Mossley (B), Nelson (B), Newton-in-Makerfield, Radcliffe, Rawtenstall (B), Royton, Stretford (B), Swinton and Pendlebury, Tyldesley, Waterloo-with-Scaforth, Westhoughton, and Widnes (B). Sterilized maternity outfits are provided by the local authority at Colne (B), Farnworth, Horwich, Ince-in-Makerfield, Leigh (B), Mossley (B), Newton-in-Makerfield, Stretford (B), Swinton and Pendlebury, Tyldesley, Waterloo-with-Scaforth, and Westhoughton.

The following are comments regarding ante-natal work by local Medical Officers of Health in their annual reports :—

**Chorley (B).**—It is not to be expected that all pregnant women will attend the ante-natal clinic. Its purpose is rather to supply specialist advice to doctors and midwives where such advice is desired. Every woman engages professional assistance for her confinement, and she should receive ante-natal care from that source, be it midwife, doctor or hospital. Unfortunately many women do not engage professional assistance till late in pregnancy and so receive little or no ante-natal care. In theory every pregnant woman will receive ante-natal care from midwife, doctor, hospital or clinic, but the evidence collected by this department shows that in actual practice 50 per cent. only of them receive any ante-natal care, and much of that is incomplete. The value of ante-natal care is unquestionable and the facilities for such care are available, but the gap between what is possible and what is actually done requires to be bridged.

**Denton.**—An ante-natal clinic has been established; sessions however did not commence until January, 1934.

**Eccles (B).**—The ante-natal clinic was held on the first and third Fridays of each month, twenty-four meetings being held during the year. A total of 319 expectant mothers attended the clinic during the year, of whom 46 had attended during the previous year, the total number of ante-natal attendances being 601. Of the 319 cases attending, 246 had arranged for admission to Park Hospital for confinement, 66 for confinement at home, one was referred to St. Mary's Hospital, Manchester, 6 were not pregnant. The midwives are encouraged to attend the ante-natal clinic with their cases and during the year this facility was freely made use of by them.

**Middleton (B).**—An ante-natal scheme was submitted to Committee in 1931 in accordance with the Ministry of Health Circular, and again in 1932 and 1933. The Health Committee approved of the scheme, but the Minute was taken back at the request of a member of the Committee in Council. The scheme was further considered by the Maternity and Child Welfare Committee, and it was decided to leave the matter over to a further date. The scheme submitted entailed :—(1) co-operation of doctor and midwife with the ante-natal clinic; (2) the facility of consultation with a gynaecological specialist with doctor or midwife in their own cases.

**Newton-in-Makerfield.**—An ante-natal clinic was instituted on the 12th January, and from this date to the end of the year 48 mothers have attended. The total attendances they have made were 201.

**Stretford (B).**—The midwives practising in the Borough are encouraged to send every patient who would not otherwise obtain pre-natal care to her usual medical practitioner for his service. Patients who have not engaged a midwife, and who first attend at the child welfare centre, are referred to their usual medical attendant by the Medical Officer of Health. The Assistant Medical Officer of Health exercises general supervision in medical, hygienic, educational and social aspects, and in the examination of urine of patients first seen at the centre, or referred for this purpose by the practitioner in charge. There is evidence that useful ante-natal work is being done.

**Swinton and Pendlebury.**—An additional ante-natal centre was opened during the year at Beechfield House, Folly Lane. The main function of the centres is to advise expectant mothers in matters relating to their health, primarily in regard to conditions directly associated with pregnancy, but also as to general ailments which indirectly affect their physical welfare. The work of the centres is thus largely educational and preventive. Evidence of insufficient nourishment has already been observed in the district among expectant mother attending the ante-natal clinics, and in many cases this deficiency must be attributed to the prolonged period of unemployment benefit, or that of Public Assistance.



**OBSTETRIC CONSULTANTS.**—In the following districts arrangements have been made by the local authorities for the services of obstetric consultants :—Accrington (B), Ashton-in-Makerfield, Ashton-under-Lyne (B), Bacup (B), Brierfield, Chadderton, Chorley (B), Colne (B), Darwen (B), Denton, Eccles (B), Farnworth, Golborne, Great Harwood, Hindley, Horwich, Lancaster (B), Middleton (B), Nelson (B), Newton-in-Makerfield, Radcliffe, Royton, Stretford (B), Swinton and Pendlebury, Waterloo-with-Seaforth, and Widnes (B). (The County Council arrangements are set out on pages 216 and 217).

**SUPPLY OF MILK AND FOODSTUFFS.**—In practically all the districts doing Child Welfare work, arrangements have been made by which a supply of food and milk for expectant and nursing mothers, and of milk for young children is available in necessitous cases.

**MATERNITY HOMES.**—Maternity homes have been established by or with the aid of Local Authorities in the following districts :—Accrington (B), 8 beds ; Colne (B), 7 beds ; Leigh (B), 18 beds ; Nelson (B), 10 beds ; and Radcliffe, 10 beds. At Lytham Saint Anne's (B) 14 beds are available at the hospitals ; at Stretford (B) 8 beds are reserved at the Memorial Hospital, and at Widnes (B), 10 beds, under the control of the District Nursing Association. In 59 other districts, it is stated, accommodation for maternity cases is available, if required, at local hospitals, infirmaries and other institutions in neighbouring large towns, or in maternity homes in adjoining districts. In other areas the public assistance hospital is the only public provision available.

For information regarding private maternity homes, registered under the Nursing Homes Registration Act, 1927, see page 221.

**Orthopædic Treatment.**—**COUNTY SCHEME.**—**CRIPPLING DEFECTS AND ORTHOPÆDICS.**—The arrangements for dealing with crippled children were fully described in the Annual Report for 1927. The following is a list of Autonomous Authorities who have joined the County scheme :—

County Boroughs—

|           |                     |
|-----------|---------------------|
| Blackpool | Oldham (beds only). |
| Burnley   | Preston             |
| Bury      | Wigan               |

Municipal Boroughs—

|                   |                        |
|-------------------|------------------------|
| Accrington        | Lancaster              |
| Ashton-under-Lyne | Leigh                  |
| Bacup             | Lytham St. Anne's      |
| Colne             | Morecambe and Heysham  |
| Darwen            | Nelson                 |
| Eccles            | Rawtenstall            |
| Haslingden        | Stretford (beds only). |
| Heywood           |                        |

Urban Districts—

|                        |                                    |
|------------------------|------------------------------------|
| Chadderton             | *Newton-in-Makerfield (M. & C. W.) |
| *Denton (M. & C. W.)   | Radcliffe                          |
| Farnworth              | *Royton (M. & C. W.)               |
| *Golborne (M. & C. W.) | *Tyldesley (M. & C. W.)            |
| Hindley                | Waterloo-with-Seaforth             |
| *Horwich (M. & C. W.)  | *Westhoughton (M. & C. W.)         |
| Ince-in-Makerfield     |                                    |

Oldham and Stretford have their own After-Care scheme, but have arrangements for sending cases to the Biddulph Orthopædic Hospital.

---

\*Autonomous Authorities for Maternity and Child Welfare purposes.—The Lancashire Education Committee is responsible for the school children in these districts.

The following table shows the number of children treated during 1933 :—

|                                 | Ancoats<br>Hospital. | Biddulph<br>Hospital. | Ethel<br>Hedley<br>Hospital. | Rochdale<br>Cripple<br>Children's<br>Home. | Myrtle<br>Street<br>Hospital. | Heswall<br>Country<br>Hospital. |
|---------------------------------|----------------------|-----------------------|------------------------------|--------------------------------------------|-------------------------------|---------------------------------|
| In-patients, 1st January, 1933  | 2                    | 87                    | 16                           | 9                                          | 4                             | 20                              |
| Admitted during the year        | 1                    | 196                   | 19                           | 18                                         | 47                            | 29                              |
| Discharged during the year      | 3                    | 195                   | 29                           | 14                                         | 44                            | 29                              |
| Remaining on 31st Dec.,<br>1933 | ...                  | 88                    | 6                            | 13                                         | 7                             | 20                              |

#### AFTER-CARE CENTRES.

The following is a summary of the work done during the year in the After-Care Centres :—

|                                                                                                       |     |     |     |     |     |     |     |        |
|-------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|--------|
| No. of individual children who attended ...                                                           | ... | ... | ... | ... | ... | ... | ... | 3,148  |
| Total No. of attendances made ...                                                                     | ... | ... | ... | ... | ... | ... | ... | 14,517 |
| No. of children referred to Consultant Orthopædic Surgeon at Hospitals (Ancoats or Myrtle Street) ... | ... | ... | ... | ... | ... | ... | ... | 272    |
| No. of children recommended for operative treatment by Orthopædic Surgeons at Centre or Hospital ...  | ... | ... | ... | ... | ... | ... | ... | 284    |
| No. of plasters made at Centres ...                                                                   | ... | ... | ... | ... | ... | ... | ... | 221    |
| No. of surgical appliances, e.g., boots, irons, &c., supplied through Centres...                      | ... | ... | ... | ... | ... | ... | ... | 1,006  |
| No. of children given remedial exercises ...                                                          | ... | ... | ... | ... | ... | ... | ... | 1,080  |
| No. of children for whom treatment has been refused by parents or guardians ...                       | ... | ... | ... | ... | ... | ... | ... | 68     |

The following table shows the defects from which the children seen in the After-Care Centres were suffering :—

#### Paralysis—

|                            |     |     |     |     |
|----------------------------|-----|-----|-----|-----|
| (a) Infantile—Facial ...   | ... | ... | ... | 1   |
| Upper limb ...             | ... | ... | ... | 34  |
| Lower limb ...             | ... | ... | ... | 264 |
| Upper and lower limbs ...  | ... | ... | ... | 6   |
| (b) Spastic—Monoplegia ... | ... | ... | ... | 10  |
| Diplegia ...               | ... | ... | ... | 12  |
| Paraplegia ...             | ... | ... | ... | 71  |
| Hemiplegia ...             | ... | ... | ... | 113 |
| (c) Birth Palsy ...        | ... | ... | ... | 68  |

#### Deformities, Congenital—

|                                    |     |     |     |     |
|------------------------------------|-----|-----|-----|-----|
| Hydrocephalus ...                  | ... | ... | ... | 3   |
| Scoliosis ...                      | ... | ... | ... | 31  |
| Sprengel's Shoulder ...            | ... | ... | ... | 13  |
| Rudimentary and Malformed Limbs... | ... | ... | ... | 29  |
| Talipes Equino Varus ...           | ... | ... | ... | 110 |
| Talipes Equino Valgus ...          | ... | ... | ... | 9   |
| Pes Calcaneus ...                  | ... | ... | ... | 36  |
| Torticollis... ..                  | ... | ... | ... | 96  |
| Torticollis, Spasmodic ...         | ... | ... | ... | 2   |
| Spina Bifida ...                   | ... | ... | ... | 24  |
| Spina Bifida with Club Foot ...    | ... | ... | ... | 12  |
| Achondroplasia ...                 | ... | ... | ... | 4   |
| Metatarsus Varus ...               | ... | ... | ... | 46  |
| Absence of Bones ...               | ... | ... | ... | 5   |
| Club Hand ...                      | ... | ... | ... | 2   |
| Dislocation of Hip ...             | ... | ... | ... | 60  |
| Subluxation of Hip ...             | ... | ... | ... | 3   |
| Contractions ...                   | ... | ... | ... | 30  |
| Syndactylism ...                   | ... | ... | ... | 7   |
| Wedge Vertebrae ...                | ... | ... | ... | 1   |
| Adduction Fifth Toe ...            | ... | ... | ... | 12  |
| Supernumerary Digits ...           | ... | ... | ... | 2   |
| Other Deformities ...              | ... | ... | ... | 37  |

#### Deformities, Traumatic—

|                                               |    |
|-----------------------------------------------|----|
| Fractures of Upper and Lower Limbs...         | 84 |
| Subluxations ...                              | 1  |
| Dislocations ...                              | 10 |
| Displaced Epiphysis ...                       | 7  |
| Contusions ...                                | 28 |
| Tendons ...                                   | 5  |
| Amputations ...                               | 6  |
| Sprains ...                                   | 11 |
| Intra Uterine Amputation of Hand ...          | 2  |
| Intra Uterine Amputation of Hand and Foot ... | 1  |
| Coxa Vara ...                                 | 7  |
| Nerve Injuries ...                            | 5  |
| Other Deformities ...                         | 11 |

#### Deformities, Other—

|                                |     |
|--------------------------------|-----|
| Pronated Feet ...              | 75  |
| Pes Cavus ...                  | 22  |
| Pes Varus... ..                | 11  |
| Pes Planus ...                 | 231 |
| Claw Feet... ..                | 22  |
| Hallux Valgus ...              | 21  |
| Scoliosis ...                  | 156 |
| Kyphosis ...                   | 100 |
| Metatarsalgia ...              | 1   |
| Lordosis ...                   | 5   |
| Synostosis Radius and Ulna ... | 3   |
| Pseudo Coxalgia ...            | 35  |
| Hammer Toes ...                | 24  |
| Birth Fractures ...            | 2   |
| Miscellaneous ...              | 93  |



|                           |     |     |     |     |                            |     |     |     |      |
|---------------------------|-----|-----|-----|-----|----------------------------|-----|-----|-----|------|
| Rickets—                  |     |     |     |     | Tumours—                   |     |     |     |      |
| Genu Varum                | ... | ... | ... | 217 | Exostosis—Multiple         | ... | ... | ... | 14   |
| Genu Valgum               | ... | ... | ... | 356 | Lower Limb                 | ... | ... | ... | 4    |
| Genu Valgum and Coxa Vara | ... | ... | ... | 4   | Sarcoma                    | ... | ... | ... | 1    |
| Genu Varum and Coxa Vara  | ... | ... | ... | 5   | Ganglion                   | ... | ... | ... | 7    |
| Generalised               | ... | ... | ... | 44  | Fibroma                    | ... | ... | ... | 1    |
| Acute                     | ... | ... | ... | 12  | Lipoma                     | ... | ... | ... | 4    |
| Renal                     | ... | ... | ... | 1   | Cyst                       | ... | ... | ... | 3    |
| Delayed (Dwarf)           | ... | ... | ... | 2   | Unclassified               | ... | ... | ... | 2    |
| Inflammations—            |     |     |     |     | Nervous Diseases—          |     |     |     |      |
| Arthritis                 | ... | ... | ... | 6   | Mental Deficiency          | ... | ... | ... | 15   |
| Arthritis, Suppurative    | ... | ... | ... | 10  | Polio-encephalitis         | ... | ... | ... | 3    |
| Arthritis, Infective      | ... | ... | ... | 30  | Other Medical Neuroses     | ... | ... | ... | 10   |
| Periostitis and Osteitis  | ... | ... | ... | 6   | Miscellaneous—             |     |     |     |      |
| Synovitis                 | ... | ... | ... | 30  | Köhler's Disease           | ... | ... | ... | 5    |
| Bursitis                  | ... | ... | ... | 31  | General Muscular Hypotonia | ... | ... | ... | 1    |
| Epiphysitis               | ... | ... | ... | 7   | Hemihypertrophy            | ... | ... | ... | 2    |
| Schlatter's Disease       | ... | ... | ... | 6   | Empyema                    | ... | ... | ... | 1    |
| Osteomyelitis             | ... | ... | ... | 18  | Malnutrition               | ... | ... | ... | 3    |
| Dactylitis                | ... | ... | ... | 1   | Unclassified               | ... | ... | ... | 87   |
| Other                     | ... | ... | ... | 7   | Total                      |     |     |     |      |
| Tuberculosis—             |     |     |     |     | ...                        | ... | ... | ... | 3148 |
| Active—Knee               | ... | ... | ... | 3   |                            |     |     |     |      |
| Hip                       | ... | ... | ... | 6   |                            |     |     |     |      |
| Elbow                     | ... | ... | ... | 2   |                            |     |     |     |      |
| Spine                     | ... | ... | ... | 3   |                            |     |     |     |      |
| Dactylitis                | ... | ... | ... | 2   |                            |     |     |     |      |
| Scaphoid                  | ... | ... | ... | 1   |                            |     |     |     |      |
| Shoulder                  | ... | ... | ... | 2   |                            |     |     |     |      |
| Wrist                     | ... | ... | ... | 1   |                            |     |     |     |      |
| Ankle                     | ... | ... | ... | 3   |                            |     |     |     |      |
| Old—Knee                  | ... | ... | ... | 6   |                            |     |     |     |      |
| Spine                     | ... | ... | ... | 13  |                            |     |     |     |      |
| Hip                       | ... | ... | ... | 12  |                            |     |     |     |      |
| Elbow                     | ... | ... | ... | 2   |                            |     |     |     |      |
| Ankle                     | ... | ... | ... | 2   |                            |     |     |     |      |
| Multiple                  | ... | ... | ... | 1   |                            |     |     |     |      |
| Shoulder                  | ... | ... | ... | 1   |                            |     |     |     |      |

The following table shows concisely the work done during the year in the Hospitals with which the County Council has arrangements :—

| Defect.             | No. of Cases treated. | Cured. | Im-<br>proved. | Im-<br>proving. | Died. | Station-<br>ary. |
|---------------------|-----------------------|--------|----------------|-----------------|-------|------------------|
| Infantile Paralysis | 35                    | ...    | 29             | 4               | ...   | 2                |
| Spastic Paralysis   | 9                     | ...    | 7              | 1               | ...   | 1                |
| Birth Palsy ...     | 4                     | ...    | 3              | 1               | ...   | ...              |
| Deformities—        |                       |        |                |                 |       |                  |
| Congenital          | 69                    | 18     | 41             | 7               | 1     | 2                |
| Traumatic           | 13                    | 3      | 9              | 1               | ...   | ...              |
| Other ...           | 43                    | 6      | 29             | 7               | ...   | 1                |
| Rickets ...         | 57                    | 21     | 29             | 6               | ...   | 1                |
| Inflammations—      |                       |        |                |                 |       |                  |
| Arthritis ...       | 13                    | ...    | 8              | 2               | ...   | 3                |
| Osteomyelitis       | 9                     | 1      | 7              | 1               | ...   | ...              |
| Abscess             | 1                     | 1      | ...            | ...             | ...   | ...              |
| Bursitis            | 3                     | 3      | ...            | ...             | ...   | ...              |
| Synovitis           | 1                     | ...    | ...            | 1               | ...   | ...              |
| Tumours—            |                       |        |                |                 |       |                  |
| Exostosis ...       | 2                     | 2      | ...            | ...             | ...   | ...              |
| Osteoma ...         | 1                     | 1      | ...            | ...             | ...   | ...              |
| Old T.B. Hip ...    | 5                     | ...    | 3              | 1               | 1     | ...              |
| T.B. Knee ...       | 1                     | ...    | 1              | ...             | ...   | ...              |
| Miscellaneous ...   | 1                     | ...    | 1              | ...             | ...   | ...              |
| Total               | 267                   | 56     | 167            | 32              | 2     | 10               |

## BIDDULPH GRANGE ORTHOPÆDIC HOSPITAL.

During the year 195 children were admitted to Biddulph Grange Hospital. The following table gives details of the defects from which these children were suffering :—

| <i>A.—Congenital Defects.</i>              |                                                                         |     |     |     |     |     |     | Total. |
|--------------------------------------------|-------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|--------|
| (a)                                        | Spina Bifida                                                            | ... | ... | ... | ... | ... | ... | 1      |
| (b)                                        | Congenital Dislocation Hip                                              | ... | ... | ... | ... | ... | ... | 4      |
| (c)                                        | Pes Cavus                                                               | ... | ... | ... | ... | ... | ... | 7      |
| (d)                                        | Congenital Talipes Equino Varus                                         | ... | ... | ... | ... | ... | ... | 5      |
| (e)                                        | Torticollis, due to maldevelopment of a cervical vertebra               | ... | ... | ... | ... | ... | ... | 1      |
| (f)                                        | Arthrogryposis Multiplex                                                | ... | ... | ... | ... | ... | ... | 1      |
| (g)                                        | Internal Derangement (Congenital abnormality of a semi-lunar cartilage) | ... | ... | ... | ... | ... | ... | 1      |
| (h)                                        | Supernumerary Condyle of Femur                                          | ... | ... | ... | ... | ... | ... | 1      |
| (i)                                        | Supernumerary Digit                                                     | ... | ... | ... | ... | ... | ... | 2      |
| (j)                                        | Syndactylism                                                            | ... | ... | ... | ... | ... | ... | 1      |
| (k)                                        | Metatarsus Varus                                                        | ... | ... | ... | ... | ... | ... | 1      |
| (l)                                        | Achondroplasia                                                          | ... | ... | ... | ... | ... | ... | 1      |
|                                            |                                                                         |     |     |     |     |     |     | — 26   |
| <i>B.—Results of Trauma.</i>               |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Congenital Torticollis                                                  | ... | ... | ... | ... | ... | ... | 21     |
| (b)                                        | Old Supracondylar Fracture Humerus                                      | ... | ... | ... | ... | ... | ... | 8      |
| (c)                                        | Old Dislocations of Joints                                              | ... | ... | ... | ... | ... | ... | 3      |
| (d)                                        | Birth Palsy                                                             | ... | ... | ... | ... | ... | ... | 3      |
| (e)                                        | Scar Contracture of Fingers                                             | ... | ... | ... | ... | ... | ... | 2      |
| (f)                                        | Volkman's Contracture                                                   | ... | ... | ... | ... | ... | ... | 1      |
| (g)                                        | Slipped Epiphysis                                                       | ... | ... | ... | ... | ... | ... | 1      |
| (h)                                        | Severed Tendon                                                          | ... | ... | ... | ... | ... | ... | 1      |
| (i)                                        | Painful Conical Amputation Stump                                        | ... | ... | ... | ... | ... | ... | 1      |
| (j)                                        | Amputation Stump for fitting of Artificial Limb                         | ... | ... | ... | ... | ... | ... | 1      |
|                                            |                                                                         |     |     |     |     |     |     | — 42   |
| <i>C.—Results of Infection.</i>            |                                                                         |     |     |     |     |     |     |        |
| <i>(i.) Of Bone.</i>                       |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Subacute Osteomyelitis with Subfascial Abscess                          | ... | ... | ... | ... | ... | ... | 1      |
| (b)                                        | Chronic Osteomyelitis                                                   | ... | ... | ... | ... | ... | ... | 7      |
|                                            |                                                                         |     |     |     |     |     |     | — 8    |
| <i>(ii.) Of Joints.</i>                    |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Acute Suppurative Arthritis                                             | ... | ... | ... | ... | ... | ... | 1      |
| (b)                                        | Subacute Suppurative Arthritis                                          | ... | ... | ... | ... | ... | ... | 4      |
| (c)                                        | Chronic Suppurative Arthritis                                           | ... | ... | ... | ... | ... | ... | 1      |
| (d)                                        | Ankylosed Joints, the results of previous Arthritis                     | ... | ... | ... | ... | ... | ... | 7      |
| (e)                                        | Polyarthritis (Still's Disease)                                         | ... | ... | ... | ... | ... | ... | 3      |
|                                            |                                                                         |     |     |     |     |     |     | — 16   |
| <i>(iii.) Of the Nervous System.</i>       |                                                                         |     |     |     |     |     |     |        |
| <i>Anterior Poliomyelitis.</i>             |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Acute                                                                   | ... | ... | ... | ... | ... | ... | 14     |
| (b)                                        | In the recovery stage                                                   | ... | ... | ... | ... | ... | ... | 1      |
| (c)                                        | Chronic, with deformity                                                 | ... | ... | ... | ... | ... | ... | 31     |
|                                            |                                                                         |     |     |     |     |     |     | — 46   |
| <i>D.—Results of Vascular Derangement.</i> |                                                                         |     |     |     |     |     |     | 70     |
| (a)                                        | Spastic Paralysis                                                       | ... | ... | ... | ... | ... | ... | 5      |
| (b)                                        | Pseudocoxalgia                                                          | ... | ... | ... | ... | ... | ... | 6      |
|                                            |                                                                         |     |     |     |     |     |     | — 11   |
| <i>E.—Neoplasms.</i>                       |                                                                         |     |     |     |     |     |     |        |
|                                            | Exostoses                                                               | ... | ... | ... | ... | ... | ... | 3      |
|                                            |                                                                         |     |     |     |     |     |     | — 3    |
| <i>F.—Deficiency Diseases.</i>             |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Rickets                                                                 | ... | ... | ... | ... | ... | ... | 30     |
| (b)                                        | Coxa Vara (Rachitic)                                                    | ... | ... | ... | ... | ... | ... | 2      |
|                                            |                                                                         |     |     |     |     |     |     | — 32   |
| <i>G.—Postural Errors.</i>                 |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Scoliosis                                                               | ... | ... | ... | ... | ... | ... | 5      |
| (b)                                        | Rigid Lumbar Spine                                                      | ... | ... | ... | ... | ... | ... | 1      |
| (c)                                        | General Defective Posture                                               | ... | ... | ... | ... | ... | ... | 1      |
|                                            |                                                                         |     |     |     |     |     |     | — 7    |
| <i>H.—Miscellaneous.</i>                   |                                                                         |     |     |     |     |     |     |        |
| (a)                                        | Bone Cyst...                                                            | ... | ... | ... | ... | ... | ... | 1      |
| (b)                                        | Hallux Valgus                                                           | ... | ... | ... | ... | ... | ... | 1      |
| (c)                                        | Muscular Dystrophy                                                      | ... | ... | ... | ... | ... | ... | 1      |
| (d)                                        | Semimembranosus Bursa                                                   | ... | ... | ... | ... | ... | ... | 1      |
|                                            |                                                                         |     |     |     |     |     |     | — 4    |

57

195



The following table shows the number and character of the operations performed during the year ended 31st December, 1933 :—

| Etiology.                  | Lesion.                                                                           | Treatment.                                            | No. of Cases. | Total |
|----------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------|
| A.—Congenital Defects ...  | Meningocele ... ..                                                                | Excision of Sac ... ..                                | 2             | 2     |
|                            | Scoliosis ... ..                                                                  | Albee's Operation ... ..                              | 1             | 1     |
|                            | Congenital Dislocation Hip ...                                                    | (a) Manipulation ... ..                               | 11            |       |
|                            |                                                                                   | (b) Open Reduction ... ..                             | 1             |       |
|                            |                                                                                   | (c) Osteotomy ... ..                                  | 2             |       |
|                            |                                                                                   |                                                       | —             | 14    |
|                            | Congenital Torticollis ... ..                                                     | Division of Sternomastoid ...                         | 19            |       |
|                            | Congenital Talipes Equino Varus                                                   | (a) Division of Soft Parts and Manipulation           | 5             | 19    |
|                            |                                                                                   | (b) Tendon Transplantation ...                        | 1             |       |
|                            |                                                                                   | (c) Midtarsal Arthrodesis... ..                       | 1             |       |
|                            |                                                                                   |                                                       | —             | 7     |
|                            | Pes Cavus ... ..                                                                  | (a) Division of Soft Parts and Manipulation           | 5             |       |
|                            |                                                                                   | (b) Tendon Transplantation ...                        | 1             |       |
|                            |                                                                                   | (c) Arthrodesis of the Big Toe Interphalangeal Joints | 1             |       |
|                            | Supernumerary Digits ... ..                                                       | Amputation ... ..                                     | —             | 7     |
|                            | Syndactylism ... ..                                                               | Plastic Operation ... ..                              | 2             | 2     |
|                            | Supernumerary Condyle of Femur                                                    | Excision of Supernumerary Condyle                     | 1             | 1     |
|                            | Internal Derangement of Joint (due to Congenital Defect of a semilunar cartilage) | Excision of Cartilage ... ..                          | 1             | 1     |
|                            | Arthrogryposis Multiplex ...                                                      | Manipulation ... ..                                   | 1             | 1     |
|                            | Metatarsus Varus ... ..                                                           | Manipulation after Division of Soft Tissues           | 1             | 1     |
| B.—Trauma ... ..           | Birth Palsy ... ..                                                                | Division of Int. Rotators ...                         | 1             | 1     |
|                            | Loose Body in Joint ... ..                                                        | Removal of Loose Body ...                             | 3             | 3     |
|                            | Volkman's Ischaemic Contracture                                                   | Max Page's Operation ... ..                           | 1             | 1     |
|                            | Ankylosis of a Joint ... ..                                                       | (a) Manipulation ... ..                               | 1             |       |
|                            |                                                                                   | (b) Pseudarthrosis... ..                              | 1             |       |
|                            |                                                                                   |                                                       | —             | 2     |
|                            | Contracture of Fingers ...                                                        | Skin Graft ... ..                                     | 3             | 3     |
|                            | Painful Amputation Stump ...                                                      | Trimming ... ..                                       | 1             | 1     |
|                            | Cubitus Varus ... ..                                                              | Osteotomy Humerus ... ..                              | 1             | 1     |
|                            |                                                                                   |                                                       | —             | —     |
| C.—Infection ... ..        | Subacute Osteomyelitis with Abscess                                               | Incision of Abscess ... ..                            | 1             | 1     |
|                            | Chronic Osteomyelitis (Pyogenic)                                                  | (a) Scraping of Bone ... ..                           | 1             |       |
|                            |                                                                                   | (b) Sequestrectomy ... ..                             | 6             |       |
|                            |                                                                                   |                                                       | —             | 7     |
|                            | Acute Suppurative Arthritis ...                                                   | Arthrotomy ... ..                                     | 1             | 1     |
|                            | Chronic Arthritis (end results) (Pyogenic) ... ..                                 | (a) Arthrodesis ... ..                                | 2             |       |
|                            |                                                                                   | (b) Subtrochanteric Osteotomy ...                     | 2             |       |
|                            |                                                                                   |                                                       | —             | 4     |
|                            | Anterior Poliomyelitis ... ..                                                     | (a) Manipulation ... ..                               | 1             |       |
|                            |                                                                                   | (b) Manipulation and Division of Soft Parts           | 4             |       |
|                            |                                                                                   | (c) Tendon Transplantation ...                        | 4             |       |
|                            |                                                                                   | (d) Arthrodesis of Joints ...                         | 13            |       |
|                            |                                                                                   | (e) Osteoclasis ... ..                                | 1             |       |
|                            |                                                                                   |                                                       | —             | 23    |
| D.—Neoplasms ... ..        | Exostosis ... ..                                                                  | Removal ... ..                                        | 3             | 3     |
| E.—Vascular Disease ...    | Spastic Paralysis ... ..                                                          | Elongation Tendo Achillis ...                         | 4             | 4     |
| F.—Deficiency of Vitamin D | Rickets ... ..                                                                    | (a) Osteotomy ... ..                                  | 20            |       |
|                            |                                                                                   | (b) Osteoclasis ... ..                                | 4             |       |
| G.—Postural Error ...      | Scoliosis ... ..                                                                  |                                                       | —             | 24    |
|                            |                                                                                   | Albee's Operation ... ..                              | 2             | 2     |
| H.—Serous Effusion ...     | Cyst Formation ... ..                                                             | Excision of Cyst ... ..                               | 2             | 2     |
|                            |                                                                                   |                                                       | —             | 140   |

The number of plasters applied during the course of treatment of the patients was 344. The number of treatments given in the Massage Department was 5,401 :—

|                     |       |
|---------------------|-------|
| Massage only ... .. | 1,435 |
| Electrical ... ..   | 543   |
| Radiant Heat ... .. | 723   |
| Exercises ... ..    | 2,700 |

Artificial sunlight was again carried out regularly during the winter months for all cases in which it was considered beneficial.

During the year there were a few cases of german measles, scarlet fever and mumps.

The staff and patients are tested on arrival and subsequently at defined periods for susceptibility to scarlet fever. Those showing a positive re-action are given immunising serum.

One patient died during the year whilst in the operating theatre.

**LOCAL ORTHOPÆDIC SCHEMES.**—Among the Town and District Councils which are Local Authorities for child welfare purposes and have made arrangements for orthopædic treatment are Chorley (B), Swinton and Pendlebury, and Widnes (B). Other districts have facilities for treatment at institutions or clinics outside their area. On page 234 is a list of Autonomous Authorities who participate in the County Council scheme.

## BLIND PERSONS ACT, 1920.

**Blind Persons Act, 1920.**—This Act empowers County Councils and County Borough Councils, whether in combination with any other Council or Councils or otherwise, to make arrangements for promoting the welfare of blind persons ordinarily resident within their area, and such Councils may, for this purpose, provide and maintain or contribute towards the provision and maintenance of workshops, hostels, homes, or other places for the reception of blind persons.

The Public Health and Housing Committee of the County Council, acting through the Maternity and Child Welfare Sub-Committee, is responsible for the administration of the Act.

The expenses incurred by the County Council under the Blind Persons Act are defrayed out of the County Fund as expenses for general purposes.

The Education Committee, acting through the School Medical Sub-Committee, is charged with the duty of educating and training the blind, and the Public Health and Housing Committee is charged largely with the duty of providing employment for the employable blind and providing financial assistance for the unemployable blind, together with a number of varied activities which may be summed up under the general heading of "Social Work." It would, perhaps, appear that this division of duties causes a certain lack of co-ordination in dealing with the blind, but as the officials of the Public Health Committee and the School Medical Sub-Committee are the same, there is unity of purpose and complete co-ordination in execution.

In compliance with the Blind Persons Act, 1920, a scheme was prepared and approved by the Ministry of Health in September, 1921. In July, 1930, the Public Health and Housing Committee agreed to take over from the Public Assistance Committee the administration of domiciliary assistance to blind persons. This necessitated the giving of financial assistance to blind persons by the Public Health and Housing Committee outside the scope of the powers conferred by the County Council's original scheme under the Blind Persons Act, 1920. Consequently a revised scheme was prepared and approved by the Ministry of Health.

### GENERAL AIMS OF THE SCHEME.

1. **THE PREVENTION OF BLINDNESS.** As it is only possible, in a scheme under the Blind Persons Act, 1920, to make provision for the welfare of persons already blind, it must be understood that the provisions made for the prevention of blindness do not actually form a part of the Council's scheme under the Blind Persons Act, 1920. It is considered advisable, however, to state for information that the methods adopted by the Lancashire County Council for the prevention of blindness are as follows :—

- (a) By using the medical and nursing staff in the prevention or treatment of ophthalmia neonatorum.
- (b) By providing facilities under the Venereal Diseases Regulations for the prevention or cure of venereal diseases.
- (c) By providing treatment, either at hospital or otherwise, for persons, where there is danger of permanent blindness if efficient treatment is not promptly undertaken.
- (d) By such other means employed by the medical and nursing staffs of the combined department as may tend to the prevention of blindness caused by other diseases.
- (e) By general educational methods through the staff of the department.

2. **CARE OF THE BLIND.** The main effort of the County Council is directed towards :—

- (a) The education and training of children and adults.
- (b) The provision of employment for those who are employable.
- (c) The provision of financial and other assistance to unemployable and other destitute blind persons.
- (d) The provision of financial and other assistance to the sighted dependent wife and/or children, under 16 years of age, of blind persons.
- (e) The provision of home teaching and the social welfare of the blind.

### GENERAL METHOD.

The scheme is worked through existing blind institutions and workshops and other voluntary agencies and, as far as possible, co-operation is arranged for with other Local Authorities under the Act.

3. **REGISTRATION.** There are two statutory definitions of blindness. In Section 69 of the Education Act, 1921, a blind child is defined as being "too blind to be able to read the ordinary school books used by children."



When a child, who has been classified as blind within the meaning of the Education Act, 1921, attains the age of 16 years, he has to be re-examined with a view to determining if he is blind within the meaning of the Blind Persons Act, 1920. Section 1 of the Blind Persons Act, 1920, defines a blind person as one who is "so blind as to be unable to perform any work for which eyesight is essential."

It will be seen that these definitions include many persons other than those who are totally blind, and that the educational definition, which is largely preventive in its purpose, is much wider than the other.

The County Council maintains such a system of registration of blind persons as gives them all the necessary information for the full administration of these Acts. No person's name is included on the Register of Blind Persons unless he is certified by one of the Assistant County Medical Officers to be blind within the meaning of the Education Act, 1921, or of the Blind Persons Act, 1920, as interpreted in Circulars 681, 780 and 1353 of the Minister of Health. If a person is considered to be a border-line case, he is examined by one of the Ophthalmic Surgeons with whom the Lancashire County Council have made special arrangements, and his name is not included on the register unless he is certified by the examining Ophthalmic Surgeon to be blind within the meaning of the Act.

The form of certificate which is completed by the County Council when alleged blind persons are examined is the same as the one recommended by the Ministry of Health and the Board of Education. A copy of every report completed by the Medical Officers of the County Council is forwarded to the supervising Voluntary Agency for the Blind, the Prevention of Blindness Committee, London, and the Northern Counties Association for the Blind, Manchester.

During the year 1933, 689 alleged blind persons were examined by the County Council and of this number 501 were certified to be blind within the meaning of the Blind Persons Act, 1920, and 188 (27·27 per cent.) were not certified.

The following table shows the number of blind persons in the Administrative County area, distributed according to age periods:—

| Supervising Agency<br>for the Blind.                                 | Under 5 |    | 5—16 |    | 16—21 |    | 21—50 |     | 50—70 |     | Over 70 |     | All ages |      | Total |
|----------------------------------------------------------------------|---------|----|------|----|-------|----|-------|-----|-------|-----|---------|-----|----------|------|-------|
|                                                                      | M.      | F. | M.   | F. | M.    | F. | M.    | F.  | M.    | F.  | M.      | F.  | M.       | F.   |       |
| Aeerington and District Society<br>for the Blind ... ..              | —       | —  | 1    | 2  | 4     | 1  | 21    | 11  | 20    | 26  | 21      | 29  | 67       | 69   | 136   |
| Ashton-under-Lyne and Dis-<br>trict Society for the Blind ...        | —       | —  | 3    | 2  | —     | 1  | 21    | 20  | 42    | 45  | 16      | 32  | 82       | 100  | 182   |
| Barrow, Furness and West-<br>morland Society for the<br>Blind ... .. | —       | —  | 1    | —  | 1     | 1  | 11    | 5   | 12    | 11  | 13      | 17  | 38       | 34   | 72    |
| Blackburn and Darwen Society<br>for the Blind ... ..                 | —       | —  | 3    | 4  | —     | 2  | 18    | 19  | 57    | 63  | 40      | 48  | 118      | 136  | 254   |
| Blackpool and Fylde Society<br>for the Blind ... ..                  | —       | —  | 2    | 3  | —     | 2  | 7     | 10  | 31    | 28  | 14      | 31  | 54       | 74   | 128   |
| Bolton Workshops and Homes<br>for the Blind ... ..                   | —       | 2  | 6    | 2  | 4     | 7  | 46    | 32  | 70    | 70  | 48      | 59  | 174      | 172  | 346   |
| Burnley and District Society<br>for the Blind ... ..                 | 1       | 1  | 2    | 3  | —     | 1  | 23    | 11  | 30    | 38  | 16      | 26  | 72       | 80   | 152   |
| Colne Blind Prevention and<br>Aid Society ... ..                     | —       | —  | 3    | 1  | —     | 1  | 10    | 5   | 13    | 16  | 9       | 12  | 35       | 35   | 70    |
| Fulwood Workshops and<br>Homes for the Blind ... ..                  | —       | 1  | 8    | 7  | 4     | 3  | 30    | 21  | 66    | 44  | 34      | 47  | 142      | 123  | 265   |
| Heywood Local Blind Aid<br>Society ... ..                            | —       | —  | 5    | 1  | —     | —  | 6     | 8   | 20    | 17  | 10      | 25  | 41       | 51   | 92    |
| Liverpool, County Area<br>adjacent to ... ..                         | —       | 1  | 1    | 5  | 2     | 2  | 24    | 16  | 22    | 31  | 30      | 36  | 79       | 91   | 170   |
| Manchester and Salford Blind<br>Aid Society ... ..                   | —       | 1  | 5    | 5  | 1     | 10 | 47    | 38  | 50    | 59  | 33      | 60  | 136      | 173  | 309   |
| Oldham Blind Persons Act<br>Sub-Committee ... ..                     | —       | —  | 1    | 2  | 1     | 4  | 14    | 12  | 27    | 26  | 15      | 16  | 58       | 60   | 118   |
| Rochdale and District Society<br>for the Blind ... ..                | —       | —  | 2    | 2  | 1     | —  | 13    | 4   | 13    | 15  | 4       | 9   | 33       | 30   | 63    |
| Rossendale Society for the<br>Blind ... ..                           | —       | —  | 2    | 4  | —     | 3  | 10    | 6   | 11    | 21  | 8       | 16  | 31       | 50   | 81    |
| St. Helens and District Society<br>for the Blind ... ..              | —       | —  | 3    | 1  | —     | —  | 8     | 9   | 9     | 10  | 16      | 11  | 36       | 31   | 67    |
| Warrington, Widnes and Dis-<br>trict Society for the Blind...        | —       | —  | —    | 3  | 3     | 2  | 18    | 12  | 33    | 31  | 31      | 32  | 85       | 80   | 165   |
| Wigan, Leigh and District<br>Workshops for the Blind ...             | 1       | 1  | 4    | 6  | 4     | 3  | 42    | 39  | 63    | 39  | 42      | 50  | 156      | 138  | 294   |
|                                                                      | 2       | 7  | 52   | 53 | 25    | 43 | 369   | 278 | 589   | 590 | 400     | 556 | 1437     | 1527 |       |
|                                                                      | 9       |    | 105  |    | 68    |    | 647   |     | 1179  |     | 956     |     | 2964     |      |       |

The Lancashire County Council provides for :—

1. CHILDREN UNDER SCHOOL AGE.—Provision is made for the welfare of blind children under school age through the Home Teachers, acting in co-operation with the Health Visitors. Where the home conditions are unsatisfactory, provision is made, when considered desirable, for accommodation in one of the Sunshine Homes of the National Institute for the Blind, or similar Institution, or when the child is between two and five years of age, the case is referred to the Local Education Committee to make suitable provision in a Nursery School recognised by the Board of Education.

2. THE EDUCATION AND TRAINING OF CHILDREN, YOUNG PERSONS AND ADULTS. (a) The number of children of elementary school age who were maintained during the year 1933 at the following Institutions was 32 boys and 31 girls, viz. :—

|                                                    | Boys. | Girls. | Total. |
|----------------------------------------------------|-------|--------|--------|
| Burnley Blind School ... ..                        | 1     | 1      | 2      |
| Catholic Blind Asylum, Liverpool ... ..            | 1     | 5      | 6      |
| Homes for the Blind, Fulwood ... ..                | 9     | 7      | 16     |
| Liverpool School for the Blind ... ..              | 3     | 8      | 11     |
| Oldham Blind School ... ..                         | 1     | 2      | 3      |
| Thomasson Memorial School, Bolton ... ..           | 6     | 4      | 10     |
| Henshaw's Institution, Manchester ... ..           | 9     | 2      | 11     |
| Sunshine Home, Southport ... ..                    | 1     | 0      | 1      |
| Chorley Wood Cottage, nr. Watford, Herts. ... ..   | 0     | 1      | 1      |
| Royal Blind School, Sheffield ... ..               | 1     | 0      | 1      |
| Court Grange Special School, Abbotskerswell ... .. | 0     | 1      | 1      |
|                                                    | 32    | 31     | 63     |

(b) The number of blind persons over 16 years of age who were maintained during the year 1933 at Special Institutions for the Blind was as follows :—

|                                                         | Males. | Females. | Total. |
|---------------------------------------------------------|--------|----------|--------|
| Blackburn Workshops for the Blind ... ..                | 3      | 3        | 6      |
| Bolton Workshops for the Blind ... ..                   | 8      | 5        | 13     |
| Burnley Workshops for the Blind ... ..                  | 3      | 2        | 5      |
| Fulwood (Preston) Workshops for the Blind ... ..        | 11     | 3        | 14     |
| Liverpool (Hardman St.) School for the Blind ... ..     | 8      | 6        | 14     |
| Liverpool, Catholic Blind Asylum ... ..                 | 2      | 2        | 4      |
| London, Royal Normal College ... ..                     | 1      | 0        | 1      |
| Manchester (Henshaw's) Institution for the Blind ... .. | 24     | 14       | 38     |
| Wigan Workshops for the Blind ... ..                    | 4      | 0        | 4      |
|                                                         | 64     | 35       | 99     |

The blind persons over 16 years of age referred to in the previous table are being trained in one of the following occupations :—

Boot repairing.  
 Brush making.  
 Chair seating.  
 French polishing.  
 Furniture making.  
 Hand loom weaving.  
 Machine knitting.  
 Mat making.  
 Mattress making.  
 Music teaching.  
 Piano tuning and repairing.  
 Rug making.  
 Skip making and basketry.



Before selecting the occupation in which a blind person should be trained, the capability of the individual is considered, and also the prospect of employment being found for him in that occupation in the locality in which he lives. The future employing agency is notified from time to time of the progress each blind person is making, and in the last few months of training definite arrangements are made for the blind person to report at the workshop or Society for the blind, nearest to his home, for employment, as a workshop employee or home worker.

**EMPLOYMENT IN WORKSHOPS.** When a blind person completes his training and there is a workshop for the blind within reasonable distance from his home, arrangements are made for his employment there. The occupations carried on at the workshops for the blind are as stated on the previous page.

The regulations of the Ministry of Health provide that weekly pay should be "at the trade union or other standard rate customary in the particular class of work in which the blind person is employed."

The handicap of blindness, however, prevents most blind persons from earning a livelihood if they are paid only what they earn on a strictly commercial basis. Consequently it is necessary to augment their earnings, and the Lancashire County Council pays grant at the rate of £40 per annum in respect of each County workshop employee. This augmentation is paid over to the individual workshop employees in amounts varying according to their weekly earnings.

In a few instances it was found that owing to the general trade depression the earnings and augmentation of a few workshop employees did not amount to 25/- a week, and consequently they were not as well off as an unemployable blind person. These cases are assisted by the Lancashire County Council in as much as the Council, after ignoring the first 5/- of their earnings and augmentation, grant them such financial assistance as may be necessary to ensure that they have a weekly income of 25/- (including the assessed weekly value of "home circumstances").

The following table shows the workshops for the blind and the number of county workshop employees employed there :—

|                                                |     |     |     |                 |
|------------------------------------------------|-----|-----|-----|-----------------|
| Blackburn and District Workshops for the Blind | ... | ... | ... | 9               |
| Blackpool   "       "       "       "       "  | ... | ... | ... | 1               |
| Bolton       "       "       "       "       " | ... | ... | ... | 24              |
| Burnley     "       "       "       "       "  | ... | ... | ... | 8               |
| Liverpool (Hardman Street)   "       "         | ... | ... | ... | 2               |
| Liverpool (Cornwallis Street)   "       "      | ... | ... | ... | 3               |
| Manchester, Henshaw's Institution              | ... | ... | ... | 50              |
| Oldham Workshops for the Blind                 | ... | ... | ... | 6               |
| Oldham Blind Women's Industries                | ... | ... | ... | 5               |
| Preston (Fulwood) Workshops for the Blind      | ... | ... | ... | 9               |
| St. Helens Workshops for the Blind             | ... | ... | ... | 2               |
| Warrington   "       "       "       "       " | ... | ... | ... | 4               |
| Wigan       "       "       "       "       "  | ... | ... | ... | 15              |
|                                                |     |     |     | <hr/> 138 <hr/> |

**HOME WORKERS.** Where a blind person returns home after his training is completed, and no workshop is within reach he can carry on his trade at home under a "Home Workers" scheme, which is supervised by the Local Voluntary Agency for the blind. The Lancashire County Council pay half the initial expenditure incurred by a Voluntary Agency for the blind in providing tools and equipment for home workers in all cases where the expenditure has, in the first instance, been approved by the Lancashire County Council. A home worker should support himself out of earnings assisted by augmentation in the same manner as a workshop employee. For each home worker approved by the Lancashire County Council a grant at the rate of £40 per annum, on the basis of average weekly earnings, is paid to the Supervising Voluntary Agency for the blind.

The home workers are encouraged to find their own markets for their goods, but where they are unable to do so every assistance is given by the workshops for the blind in disposing of their goods.

In some instances, however, it has been found that some of the home workers have had difficulty in obtaining sufficient orders to keep them fully occupied, with a consequent reduction in their average weekly earnings. These cases are assisted by the Lancashire County Council in as much as the Council, after ignoring the first 5/- of their earnings and augmentation, grant them such financial assistance as may be necessary to ensure that they have a weekly income of 25/- (including the assessed weekly value of "home circumstances").

The following table shows the Workshops and Societies for the Blind and the number of county home workers supervised by them :—

|                                                             |     |     |     |     |
|-------------------------------------------------------------|-----|-----|-----|-----|
| Accrington and District Society for the Blind               | ... | ... | ... | 12  |
| Barrow, Furness and Westmorland Society for the Blind       | ... | ... | ... | 2   |
| Blackburn Workshops for the Blind                           | ... | ... | ... | 2   |
| Blackpool and Fylde Society for the Blind                   | ... | ... | ... | 1   |
| Bolton Workshops for the Blind                              | ... | ... | ... | 5   |
| Burnley Society for the Blind                               | ... | ... | ... | 8   |
| Homes for the Blind, Fulwood, Preston                       | ... | ... | ... | 13  |
| Liverpool Workshops for the Blind (Cornwallis St.)          | ... | ... | ... | 10  |
| Henshaw's Institution for the Blind, Manchester             | ... | ... | ... | 6   |
| Oldham Workshops for the Blind                              | ... | ... | ... | 1   |
| Rochdale and District Society for the Blind                 | ... | ... | ... | 2   |
| Rossendale Society for the Blind                            | ... | ... | ... | 8   |
| St. Helens and District Society for the Blind               | ... | ... | ... | 2   |
| Warrington, Widnes and District Society for the Blind       | ... | ... | ... | 2   |
| Wigan and District Workshops for the Blind                  | ... | ... | ... | 6   |
| National Library for the Blind (Northern Branch) Manchester | ... | ... | ... | 12* |
|                                                             |     |     |     | —   |
|                                                             |     |     |     | 92  |
|                                                             |     |     |     | —   |

\* These home workers are employed as copyists, and the Lancashire County Council pays grant at the rate of £40 per annum in respect of each copyist provided they work the agreed number of hours weekly.

**HOSTELS.** Hostel accommodation is provided for those blind persons who have no homes and are employed in approved workshops for the blind. The Lancashire County Council pays grant at the rate of £10 per annum in respect of "hostel" cases.

The following shows the hostels and the number of County cases resident there :—

|                                                   |     |     |   |
|---------------------------------------------------|-----|-----|---|
| Woodlands Home and Hostel for Blind Women, Bolton | ... | ... | 1 |
|---------------------------------------------------|-----|-----|---|

**HOMES.** Accommodation is provided in homes for the blind for suitable adult blind persons who are aged or infirm or incapable of work and are in need of such accommodation. The Lancashire County Council pays grant at the rate of £26 per annum in respect of "home" cases.

The following table shows the "Homes" and the number of County cases resident there :—

|                                                        |     |     |     |    |
|--------------------------------------------------------|-----|-----|-----|----|
| Sunbeam Home of Rest, Blackpool                        | ... | ... | ... | 2  |
| Woodlands Home and Hostel for Blind Women, Bolton      | ... | ... | ... | 2  |
| Birch Avenue, Gresham and Hayesleigh Homes, Manchester | ... | ... | ... | 16 |
| Oaklands Home, Pendleton, Manchester                   | ... | ... | ... | 7  |
| Norwich Institution for the Blind                      | ... | ... | ... | 1  |
|                                                        |     |     |     | —  |
|                                                        |     |     |     | 28 |
|                                                        |     |     |     | —  |



**HOME TEACHERS.** The home teachers visit the blind persons in their own homes and teach them Braille or Moon and pastime occupations. They devote a good deal of their time to social work among the blind, and make arrangements to obtain Moon or Braille literature for them from the National Library for the Blind, in addition to reading aloud to the blind other books and newspapers found in their homes. The home teachers keep in touch with the financial circumstances of each individual blind person and report cases to the Supervising Voluntary Agency for the blind. The Lancashire County Council pays grant at the rate of £156 per annum in respect of each home teacher employed wholly in visiting County cases. All home teachers in respect of whom grant is paid must be approved by the Lancashire County Council, and it is a condition of approval in the case of all appointed since the 1st April, 1923, that they should obtain the Home Teaching Certificate of the College of Teachers of the Blind within two years of appointment.

The following table shows the Voluntary Agencies for the blind and the number of County home teachers in respect of whom the Lancashire County Council pays grant :—

|                                                       |     |     |     |    |
|-------------------------------------------------------|-----|-----|-----|----|
| Accrington and District Society for the Blind         | ... | ... | ... | 2  |
| Ashton-under-Lyne and District Society for the Blind  | ... | ... | ... | 2  |
| Barrow, Furness and Westmorland Society for the Blind | ... | ... | ... | 1  |
| Blackburn and Darwen Society for the Blind            | ... | ... | ... | 2  |
| Blackpool and Fylde Society for the Blind             | ... | ... | ... | 2  |
| Bolton Workshops and Homes for the Blind              | ... | ... | ... | 3  |
| Burnley and District Society for the Blind            | ... | ... | ... | 3  |
| Fulwood Workshops and Homes for the Blind, Preston    | ... | ... | ... | 3  |
| Heywood Blind Aid Society                             | ... | ... | ... | 1  |
| County area adjacent to Liverpool                     | ... | ... | ... | 1  |
| Henshaw's Institution for the Blind, Manchester       | ... | ... | ... | 1  |
| Manchester and Salford Blind Aid Society              | ... | ... | ... | 2  |
| Oldham Blind Persons Act Sub-Committee                | ... | ... | ... | 1  |
| Rochdale and District Society for the Blind           | ... | ... | ... | 1  |
| Rossendale Society for the Blind                      | ... | ... | ... | 1  |
| St. Helens and District Society for the Blind         | ... | ... | ... | 1  |
| Warrington, Widnes and District Society for the Blind | ... | ... | ... | 2  |
| Wigan and District Workshops for the Blind            | ... | ... | ... | 3  |
|                                                       |     |     |     | —  |
|                                                       |     |     |     | 32 |
|                                                       |     |     |     | —  |

**UNEMPLOYABLE BLIND PERSONS AND THEIR SIGHTED DEPENDANTS.**—The Lancashire County Council has made a declaration that all assistance to necessitous blind persons shall be provided exclusively by virtue of the Blind Persons Act, 1920, and not by way of poor relief.

Furthermore, the functions of the Public Assistance Committee in so far as they relate to the domiciliary relief of the sighted dependent wife and/or children under 16 years of age, of blind persons, are discharged on behalf of, and subject to, the general direction and control of the Public Assistance Committee by the Public Health and Housing Committee of the Council, acting through the Committee of the Council responsible for the administration of the Blind Persons Act, 1920.

During the year 1933, 2,408 blind persons were classified as unemployable, and of this number 1,693 were granted domiciliary assistance under the scheme of the County Council. During the same period 89 blind persons were granted domiciliary assistance in respect of their sighted dependants, the number of sighted dependants involved being 159.

The schemes for granting financial assistance to unemployable or destitute blind persons and their sighted dependants were described in detail on pages 192 to 195 of the Annual Report for 1930. The scheme in respect of sighted dependants has been amended and now provides for 3/- weekly instead of 2/- weekly for each dependent child under 16 years of age.

**GRANTS TO VOLUNTARY AGENCIES FOR THE BLIND.**—The following table shows the amounts paid by the Lancashire County Council to the various Voluntary Agencies for the Blind for the financial year 1933-34 :—

| Name of Workshop or Society<br>for the Blind.            | Workshop<br>Employees<br>at £40<br>per annum. | Home<br>Workers<br>at £40<br>per annum. | Home<br>Teachers<br>at £156<br>per annum. | "Home"<br>Cases at<br>£26 per<br>annum. | "Hostel"<br>Cases at<br>£10 per<br>annum. | Tools and<br>Equipment<br>for Home<br>Workers. | Travelling<br>Expenses<br>of Home<br>Teachers. | Relief of<br>Unemployable<br>Blind Persons. | Block<br>Grants<br>to<br>Societies. | Miscellaneous. | Relief of<br>Sighted<br>Dependants<br>of Blind<br>Persons. | TOTAL.     |
|----------------------------------------------------------|-----------------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------------------------|---------------------------------------------|-------------------------------------|----------------|------------------------------------------------------------|------------|
|                                                          | £ s. d.                                       | £ s. d.                                 | £ s. d.                                   | £ s. d.                                 | £ s. d.                                   | £ s. d.                                        | £ s. d.                                        | £ s. d.                                     | £ s. d.                             | £ s. d.        | £ s. d.                                                    | £ s. d.    |
| Accrington Workshops ...                                 | ...                                           | 411 15 2                                | 234 0 0                                   | ...                                     | ...                                       | ...                                            | ...                                            | 2366 1 9                                    | 130 0 0                             | ...            | 84 19 0                                                    | 3226 15 11 |
| Ashton-under-Lyne Society ...                            | ...                                           | ...                                     | 218 0 0                                   | ...                                     | ...                                       | ...                                            | 5 0 0                                          | 3097 2 3                                    | 180 0 0                             | ...            | 100 3 6                                                    | 3600 5 9   |
| Barrow Society ...                                       | ...                                           | 41 2 5                                  | 111 10 4                                  | ...                                     | ...                                       | 2 16 6                                         | ...                                            | 1220 6 8                                    | 75 0 0                              | ...            | ...                                                        | 1450 15 11 |
| Blackburn Workshops ...                                  | 363 9 2                                       | 78 2 11                                 | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | ...                                         | 100 0 0                             | ...            | ...                                                        | 541 12 1   |
| Blackburn and Darwen Society ...                         | ...                                           | ...                                     | 312 0 0                                   | ...                                     | ...                                       | ...                                            | 20 0 0                                         | 3786 10 2                                   | 230 0 0                             | ...            | ...                                                        | 4348 10 2  |
| Blackpool and Fylde Society ...                          | 40 0 0                                        | 15 19 10                                | 234 0 0                                   | 52 0 0                                  | ...                                       | ...                                            | 5 0 0                                          | 2069 10 3                                   | 135 0 0                             | ...            | 20 0 0                                                     | 2571 10 1  |
| Bolton Workshops ...                                     | 847 13 0                                      | 177 13 10                               | 468 0 0                                   | 52 0 0                                  | 10 0 0                                    | ...                                            | 30 0 0                                         | 6124 6 3                                    | 300 0 0                             | 80 0 0<br>(a)  | 277 3 4                                                    | 8366 16 5  |
| Burnley Society ...                                      | ...                                           | 381 10 9                                | 390 0 0                                   | ...                                     | ...                                       | ...                                            | 10 0 0                                         | 2006 4 7                                    | 125 0 0                             | ...            | 39 13 0                                                    | 2952 8 4   |
| Burnley Workshops ...                                    | 270 8 0                                       | ...                                     | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | ...                                         | ...                                 | ...            | ...                                                        | 270 8 0    |
| Colne Society ...                                        | ...                                           | ...                                     | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | 1374 0 6                                    | 65 0 0                              | ...            | 13 17 0                                                    | 1452 17 6  |
| Fulwood (Preston) ...                                    | 265 10 0                                      | 462 10 10                               | 461 10 0                                  | ...                                     | ...                                       | 9 9 0                                          | 30 0 0                                         | 3448 4 5                                    | 265 0 0                             | ...            | 59 11 0                                                    | 5001 15 3  |
| Heywood Branch (Rochdale<br>Society) ...                 | ...                                           | ...                                     | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | 1352 5 1                                    | ...                                 | ...            | 17 8 0                                                     | 1369 13 1  |
| Liverpool, Cornwallis Street<br>Workshops ...            | 130 0 9                                       | 318 11 8                                | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | 130 16 0                                    | ...                                 | ...            | ...                                                        | 579 8 5    |
| Liverpool, Hardman Street<br>Workshops ...               | 40 0 0                                        | ...                                     | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | ...                                         | ...                                 | ...            | ...                                                        | 40 0 0     |
| Liverpool, Administrative County<br>Area adjacent to ... | ...                                           | ...                                     | 156 0 0                                   | ...                                     | ...                                       | ...                                            | 80 18 5                                        | 2430 3 0                                    | ...                                 | ...            | 154 7 0                                                    | 2821 8 5   |
| Manchester and Salford Society                           | ...                                           | ...                                     | 312 0 0                                   | 204 8 6                                 | ...                                       | ...                                            | 20 0 0                                         | 4105 5 6                                    | 300 0 0                             | ...            | 66 15 3                                                    | 5008 9 3   |
| Manchester, Henshaw's Institution                        | 1661 0 11                                     | 157 14 11                               | 24 7 7                                    | 236 11 2                                | 5 14 8                                    | 2 16 6                                         | ...                                            | 354 8 3                                     | 100 0 0                             | ...            | 51 7 0                                                     | 2594 1 0   |
| National Library for the Blind ...                       | ...                                           | 306 3 0                                 | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | ...                                         | 680 0 0                             | ...            | ...                                                        | 986 3 0    |
| Norwich Institution ...                                  | ...                                           | ...                                     | ...                                       | 13 0 0                                  | ...                                       | ...                                            | ...                                            | ...                                         | ...                                 | ...            | ...                                                        | 13 0 0     |
| Northern Counties Association ...                        | ...                                           | ...                                     | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | ...                                         | 340 0 0<br>(b)                      | ...            | ...                                                        | 340 0 0    |
| National Institute ...                                   | ...                                           | ...                                     | ...                                       | ...                                     | ...                                       | ...                                            | ...                                            | ...                                         | 499 5 0                             | ...            | ...                                                        | 499 5 0    |



| Name of Workshop or Society<br>for the Blind.      | Workshop<br>Employees<br>at £40<br>per annum. | Home<br>Workers<br>at £40<br>per annum. | Home<br>Teachers<br>at £156<br>per annum. | "Home"<br>Cases at<br>£26 per<br>annum. | "Hostel"<br>Cases at<br>£10 per<br>annum. | Tools and<br>Equipment<br>for Home<br>Workers | Travelling<br>Expenses<br>of Home<br>Teachers. | Relief of<br>Unemployable<br>Blind Persons. | Block<br>Grants<br>to<br>Societies. | Miscellaneous. | Relief of<br>Sighted<br>Dependants<br>of Blind<br>Persons. | TOTAL.      |
|----------------------------------------------------|-----------------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------------|------------------------------------------------|---------------------------------------------|-------------------------------------|----------------|------------------------------------------------------------|-------------|
|                                                    | £ s. d.                                       | £ s. d.                                 | £ s. d.                                   | £ s. d.                                 | £ s. d.                                   | £ s. d.                                       | £ s. d.                                        | £ s. d.                                     | £ s. d.                             | £ s. d.        | £ s. d.                                                    | £ s. d.     |
| Oldham, Men's Workshops ...                        | 236 5 7                                       | 28 3 3                                  | ...                                       | ...                                     | ...                                       | ...                                           | ...                                            | 5 5 0                                       | ...                                 | ...            | ...                                                        | 269 13 10   |
| Oldham, Women's Workshops ...                      | 153 14 0                                      | ...                                     | ...                                       | ...                                     | ...                                       | ...                                           | ...                                            | 18 15 5                                     | ...                                 | ...            | ...                                                        | 172 9 5     |
| Oldham Blind Persons' Act Sub-Committee ...        | ...                                           | ...                                     | 156 0 0                                   | ...                                     | ...                                       | ...                                           | ...                                            | 1648 14 6                                   | 10 0 0                              | ...            | ...                                                        | 1814 14 6   |
| Rochdale Society ...                               | ...                                           | 84 16 2                                 | 156 0 0                                   | ...                                     | ...                                       | ...                                           | 10 0 0                                         | 1018 18 6                                   | 130 0 0                             | ...            | 17 11 0                                                    | 1417 5 8    |
| Rossendale Society ...                             | ...                                           | 243 17 5                                | 156 0 0                                   | ...                                     | ...                                       | ...                                           | ...                                            | 1071 15 0                                   | 80 0 0                              | ...            | ...                                                        | 1551 12 5   |
| St. Helens Workshops ...                           | 77 3 7                                        | 80 0 0                                  | 73 8 4                                    | ...                                     | ...                                       | ...                                           | 10 0 0                                         | 874 11 2                                    | 190 0 0                             | ...            | 49 5 0                                                     | 1354 8 1    |
| Warrington Workshops ...                           | 108 16 1                                      | 14 13 8                                 | 312 0 0                                   | ...                                     | ...                                       | 8 16 11                                       | 20 0 0                                         | 3088 12 1                                   | 250 0 0                             | 5 5 0<br>(c)   | 146 9 0                                                    | 3954 12 9   |
| Wigan Workshops... ..                              | 516 16 1                                      | 183 12 4                                | 362 17 5                                  | ...                                     | ...                                       | ...                                           | 23 5 3                                         | 5075 18 3                                   | 430 0 0                             | 65 16 0<br>(d) | 306 9 0                                                    | 6964 14 4   |
| Total ...                                          | 4710 17 2                                     | 2986 8 2                                | 4137 13 8                                 | 557 19 8                                | 15 14 8                                   | 23 18 11                                      | 264 3 8                                        | 46667 14 7                                  | 4614 5 0                            | 151 1 0        | 1404 18 1                                                  | 65534 14 7  |
| Recovered from the Public Assistance Committee ... |                                               |                                         |                                           |                                         |                                           |                                               |                                                |                                             |                                     |                | ...                                                        | 1404 18 1   |
|                                                    |                                               |                                         |                                           |                                         |                                           |                                               |                                                |                                             |                                     |                |                                                            | £64129 16 6 |

(a) Christmas Grants.

(b) Includes £38 5s. 0d. for Maintenance of a Child at the Sunshine Home for Blind Babies, Southport, and £40 0s. 0d. for grant towards cost of Articles of a Law Student.

(c) Spectacles.

(d) Travelling Expenses of Workshop Employees.

## WIRELESS TELEGRAPHY (BLIND PERSONS FACILITIES) ACT, 1926.

A blind person (not being resident in a public or charitable institution or a school) who produces to the Postmaster-General a certificate issued by or under the authority of the Council of the County, or of the County Borough, in which he is ordinarily resident, that he is registered as a blind person in the area of the County or of the County Borough, may receive a Wireless Licence without the payment of any fee.

All applications for certificates of blindness for blind persons resident in the Administrative County area are forwarded to the County Council. If the applicant is certified by one of the Assistant County Medical Officers to be blind within the meaning of the Blind Persons Act, 1920, the required certificate is issued.

During the year 1933, 414 certificates were issued.

If a blind person who has been provided by the County Council with a certificate of blindness, for the purposes of the above Act, dies or removes to another address the local Postmaster is notified accordingly.

## SHOPS ACTS.

**The Shops Acts, 1912-1930.**—The County Council is the “local authority” for the purpose of enforcing the Shops Acts in the County area except in municipal boroughs and in the urban districts with a population at the last published census of twenty thousand or upwards. The powers of making certain Orders under these Acts have been delegated by the County Council to the Councils of twenty-eight urban districts, but the County Council retained, in these districts, the powers of supervision, prosecutions, etc.

To the end of 1933 the County Council had made 155 Orders of various kinds, and some 76 Orders had been made by local Councils under the powers delegated to them.

During the year under report the following Orders were made :—

By the County Council :—

| Districts.                                                                                                                                | Trade or Business.                                                   | Nature of Order made.                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Church<br>Clayton-le-Moors<br>Oswaldtwistle<br>Rishton                                                                                    | All trades.                                                          | Revocation of Order suspending general closing hours on certain days preceding holidays. |
| Little Lever                                                                                                                              |                                                                      |                                                                                          |
| Formby                                                                                                                                    | Sale of fruit, flowers, vegetables, fish, poultry, game and rabbits. | Revocation of Order suspending general closing hours on Thursday before Good Friday.     |
| Great Crosby                                                                                                                              |                                                                      |                                                                                          |
| Little Crosby                                                                                                                             |                                                                      |                                                                                          |
| Litherland                                                                                                                                |                                                                      |                                                                                          |
| Ford (Sefton (R)).                                                                                                                        |                                                                      |                                                                                          |
| Huyton-with-Roby<br>Prescot<br>Eccleston<br>Rainhill<br>Whiston                                                                           | Do.                                                                  | Do.                                                                                      |
| Formby<br>Great Crosby<br>Little Crosby<br>Huyton-with-Roby<br>Litherland<br>Prescot<br>and townships in former rural district of Sefton. |                                                                      | Do.                                                                                      |
| Thornton Cleveleys (part).                                                                                                                | All trades.                                                          |                                                                                          |
| Urmston                                                                                                                                   | Butchers.                                                            | Suspension of weekly half-holiday during certain periods of the year.                    |

By District Councils :—

|                   |             |                                                                                    |
|-------------------|-------------|------------------------------------------------------------------------------------|
| Padiham           | All trades. | Suspension of general closing hour on Thursday before Good Friday.                 |
| Grange-over-Sands | All trades. | Suspension of weekly half-holiday during the period 24th Aug. to 30th Sept., 1933. |
| Tyldesley         | All trades. | Fixing Friday as the late day.                                                     |



The first five Orders mentioned on page 247, which had been made by the County Council under Section 7 (2) of the Shops (Hours of Closing) Act, 1928, were revoked after consultation with the Home Office who had stated that they were advised a Local Authority has no power to make an Order under the sub-section *applying only to a part of its area*. This decision places the County Council in a difficult position, inasmuch as the Councils of Boroughs and larger Urban Districts, autonomous under the Shops Acts, can make Orders under the sub-section for their respective districts, whilst the County Council cannot make an Order for a district which may be immediately adjoining one or more districts for which this particular kind of Order has been made. The County Public Health Committee has asked the Home Secretary to bear this point in mind when introducing further shops legislation.

During 1933 three applications were received from Traders' Associations or bodies of traders asking for Orders under the sub-section above referred to applying to their respective districts, but on the interpretation set out above they had to be declined. Another application was received from an Association for one particular class of trade asking that such an Order be made covering the whole area under the jurisdiction of the County Council, and this also was declined as the Order desired, if made, would affect every class of trade in every district in the County area.

Two other applications for Exemption Orders for one particular trade were refused.

**OFFENCES.**—Proceedings were instituted in 13 instances during 1933; fines were inflicted in 5 cases and in the remaining 8 cases the defendants were ordered to pay costs. A number of minor offences were met by cautions. Another class of offence came under observation; in several instances stalls or roadside premises were carrying on retail trade in garden produce, fruit, flowers, etc., mainly to passing motorists, after the statutory closing hours. The County Public Health Committee has this matter still under consideration.

**District Health Reports for 1933.**—The Ministry of Health Circular 1346 to local Medical Officers of Health respecting their annual reports for the year 1933 has been referred to on page 7. From every County district the Summary Form prepared in the County Public Health Department has been received, and from the details given therein much of the information in this report has been prepared. In a few instances the Form was not supplied until the month of August, and at the time of writing (Mid-August, 1934) the annual reports of the Medical Officers of Health of eight districts have not been received, viz., 5 municipal boroughs, 1 urban district and 2 rural districts.

I conclude my report for the year 1933 by again expressing my indebtedness and thanks to the District Medical Officers of Health, their sanitary staffs, and other local officials, for their friendly and valuable co-operation in the development of an ever growing public health service. My thanks are also accorded to them for supplying my department with the statutory returns, statistics, etc., and also for information outside their statutory obligations.

I have the honour to be, Ladies and Gentlemen,

Yours obediently,

J. J. BUTTERWORTH,

County Medical Officer of Health.

Public Health Department,

County Offices, Preston,

August, 1934.

ADMINISTRATIVE COUNTY OF LANCASTER.

---

BIRTH AND DEATH RATES

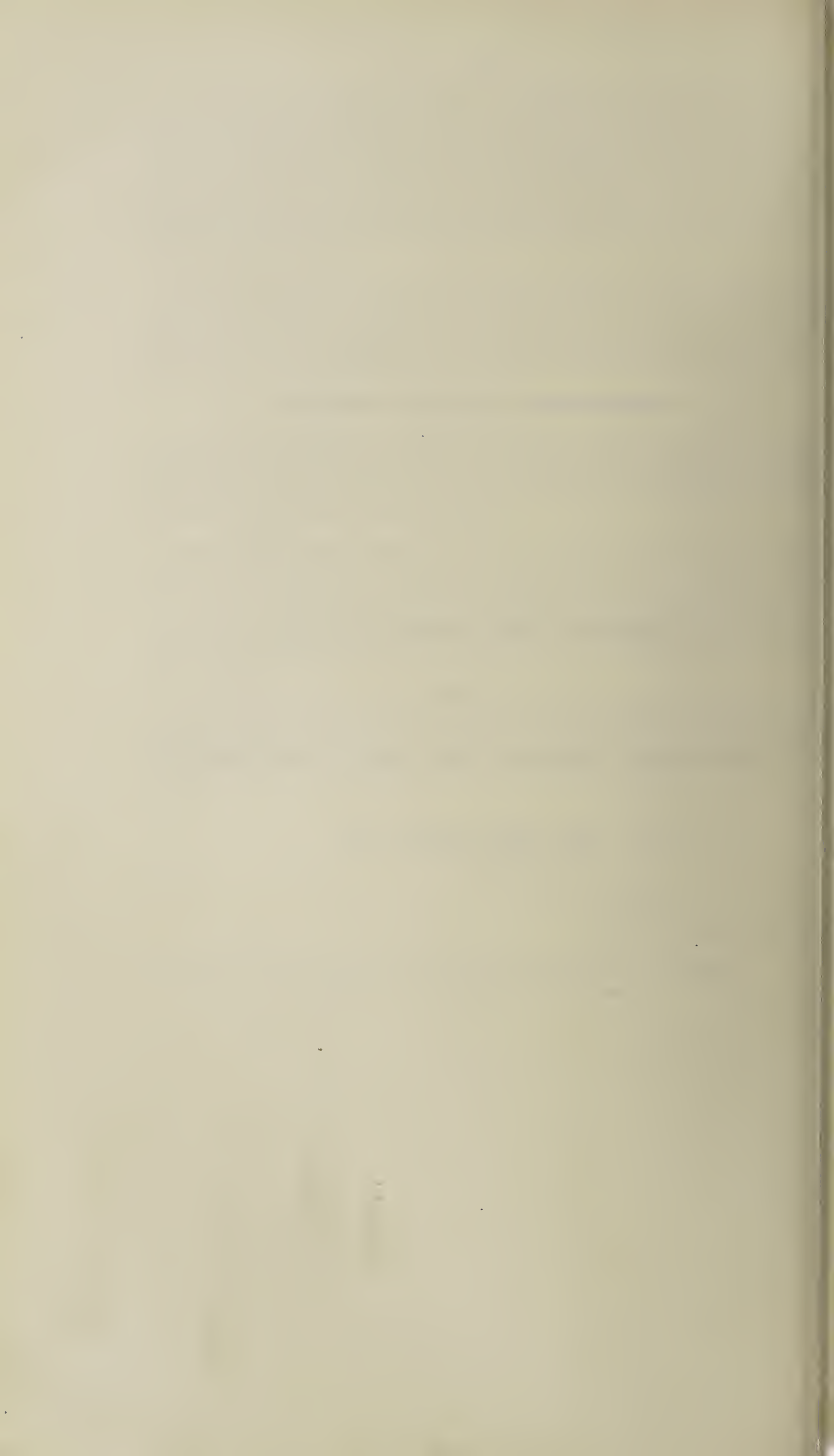
OF THE

BOROUGHES, URBAN AND RURAL DISTRICTS

FOR THE YEAR 1933,

COMPARED WITH THE RATES FOR THE YEAR 1932, AND WITH THE  
AVERAGES FOR THE FIVE YEARS 1928-1932.





## BOROUGH AND URBAN DISTRICTS.

The district populations are the Registrar-General's estimate for year 1933.

For Stillbirth-rate and number of Legitimate and Illegitimate Births see Table 2, pages 18 to 25.

Owing to extension or reduction of many areas on the 1st April, or the 1st October, 1933, the Registrar-General has supplied, for the districts concerned, an adjusted population to be used for the calculation of the birth and death rates.

NOTE.—Under the Review of County districts many areas have been extended or reduced. The Statistics for the year 1932 and the 5 years averages generally relate to the old areas.

|                                  |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                  |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| Abram.—                          |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 6,790.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 16·3       | 11·2                                               | 0·60                   | 0·78                    | 7·05                                    | —                                                   | 60  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 17·2       | 10·9                                               | 0·73                   | 0·58                    | 8·47                                    | 7·93                                                | 50  |
| 1933                             |  |  |  |  | ...                               | 16·6       | 11·9                                               | 0·44                   | 0·58                    | nil                                     | nil                                                 | 88  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | +0·3       | +0·7                                               | −0·16                  | −0·20                   | −7·05                                   | —                                                   | +28 |
| Previous year                    |  |  |  |  | ...                               | −0·6       | +1·0                                               | −0·29                  | nil                     | −8·47                                   | −7·93                                               | +38 |
| Accrington (Borough).—           |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 41,930.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 11·5       | 13·6                                               | 0·62                   | 1·67                    | 2·74                                    | —                                                   | 64  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 9·7        | 13·3                                               | 0·61                   | 1·69                    | 2·42                                    | 2·26                                                | 72  |
| 1933                             |  |  |  |  | ...                               | 9·5        | 14·0                                               | 0·47                   | 2·12                    | 2·49                                    | 2·35                                                | 47  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −2·0       | +0·4                                               | −0·15                  | +0·45                   | −0·25                                   | —                                                   | −17 |
| Previous year                    |  |  |  |  | ...                               | −0·2       | +0·7                                               | −0·14                  | +0·43                   | +0·07                                   | +0·09                                               | −25 |
| Adlington.—                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 4,221.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 12·6       | 11·3                                               | 0·97                   | 1·34                    | 15·20                                   | —                                                   | 95  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 11·3       | 11·6                                               | 0·71                   | 0·71                    | 41·66                                   | 37·73                                               | 83  |
| 1933                             |  |  |  |  | ...                               | 13·0       | 12·0                                               | 0·71                   | 0·94                    | nil                                     | nil                                                 | 90  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | +0·4       | +0·7                                               | −0·26                  | −0·40                   | −15·20                                  | —                                                   | −5  |
| Previous year                    |  |  |  |  | ...                               | +1·7       | +0·4                                               | nil                    | +0·23                   | −41·66                                  | −37·73                                              | +7  |
| Ashton-in-Makerfield.—           |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 20,230.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  |                                   | 16·1       | 12·0                                               | 0·41                   | 1·03                    | 5·72                                    | —                                                   | 82  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 16·2       | 12·3                                               | 0·34                   | 1·02                    | 6·00                                    | 5·76                                                | 69  |
| 1933                             |  |  |  |  | ...                               | 15·1       | 13·2                                               | 0·29                   | 0·64                    | 13·07                                   | 12·30                                               | 107 |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1·0       | +1·2                                               | −0·12                  | −0·39                   | +7·35                                   | —                                                   | +25 |
| Previous year                    |  |  |  |  | ...                               | −1·1       | +0·9                                               | −0·05                  | −0·38                   | +7·07                                   | +6·54                                               | +38 |
| Ashton-under-Lyne (Borough).—    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 50,540.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 14·1       | 14·0                                               | 0·76                   | 1·55                    | 5·71                                    | —                                                   | 77  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 13·5       | 13·6                                               | 0·60                   | 1·62                    | 4·34                                    | 4·06                                                | 84  |
| 1933                             |  |  |  |  | ...                               | 12·5       | 13·9                                               | 0·73                   | 2·05                    | 6·30                                    | 5·92                                                | 64  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1·6       | −0·1                                               | −0·03                  | +0·50                   | +0·59                                   | —                                                   | −13 |
| Previous year                    |  |  |  |  | ...                               | −1·0       | +0·3                                               | +0·13                  | +0·43                   | +1·96                                   | +1·86                                               | −20 |



|                                  |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                  |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| <b>Aspull.—</b>                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 6,929.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 18.4       | 12.2                                               | 0.45                   | 1.16                    | 1.66                                    | —                                                   | 82  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 17.0       | 11.1                                               | 0.56                   | 0.85                    | 8.33                                    | 8.06                                                | 58  |
| 1933                             |  |  |  |  | ...                               | 17.1       | 13.8                                               | 0.86                   | 1.58                    | nil                                     | nil                                                 | 100 |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1.3       | +1.6                                               | +0.41                  | +0.42                   | −1.66                                   | —                                                   | +18 |
| Previous year                    |  |  |  |  | ...                               | +0.1       | +2.7                                               | +0.30                  | +0.73                   | −8.33                                   | −8.06                                               | +42 |
| <b>Atherton.—</b>                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 20,430.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 15.6       | 11.6                                               | 0.50                   | 1.15                    | 4.92                                    | —                                                   | 82  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 15.4       | 12.6                                               | 0.54                   | 1.32                    | 3.18                                    | 3.01                                                | 108 |
| 1933                             |  |  |  |  | ...                               | 13.7       | 11.8                                               | 0.53                   | 1.66                    | 3.57                                    | 3.43                                                | 71  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1.9       | +0.2                                               | +0.03                  | +0.51                   | −1.35                                   | —                                                   | −11 |
| Previous year                    |  |  |  |  | ...                               | −1.7       | −0.8                                               | −0.01                  | +0.34                   | +0.39                                   | +0.42                                               | −37 |
| <b>Audenshaw.—</b>               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 9,126.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 13.0       | 12.0                                               | 0.59                   | 1.83                    | 3.40                                    | —                                                   | 46  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 11.1       | 11.3                                               | 0.56                   | 1.81                    | nil                                     | nil                                                 | 10  |
| 1933                             |  |  |  |  | ...                               | 12.2       | 11.1                                               | 0.32                   | 1.86                    | nil                                     | nil                                                 | 35  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −0.8       | −0.9                                               | −0.27                  | +0.03                   | −3.40                                   | —                                                   | −11 |
| Previous year                    |  |  |  |  | ...                               | +1.1       | −0.2                                               | −0.24                  | +0.05                   | nil                                     | nil                                                 | +25 |
| <b>Bacup (Borough).—</b>         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 20,320.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 14.9       | 15.1                                               | 0.51                   | 1.14                    | 5.72                                    | —                                                   | 76  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 14.7       | 13.6                                               | 0.58                   | 0.87                    | 3.31                                    | 3.12                                                | 52  |
| 1933                             |  |  |  |  | ...                               | 13.7       | 14.9                                               | 0.68                   | 1.42                    | nil                                     | nil                                                 | 50  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1.2       | −0.2                                               | +0.17                  | +0.28                   | −5.72                                   | —                                                   | −26 |
| Previous year                    |  |  |  |  | ...                               | −1.0       | +1.3                                               | +0.10                  | +0.55                   | −3.31                                   | −3.12                                               | −2  |
| <b>Barrowford.—</b>              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 5,172.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 10.9       | 13.0                                               | 0.33                   | 1.55                    | 3.44                                    | —                                                   | 76  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 9.9        | 12.2                                               | 0.38                   | 1.52                    | nil                                     | nil                                                 | 76  |
| 1933                             |  |  |  |  | ...                               | 13.3       | 18.1                                               | 0.19                   | 2.12                    | nil                                     | nil                                                 | 101 |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | +2.4       | +5.1                                               | −0.14                  | +0.57                   | −3.44                                   | —                                                   | +25 |
| Previous year                    |  |  |  |  | ...                               | +3.4       | +5.9                                               | −0.19                  | +0.60                   | nil                                     | nil                                                 | +25 |

|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| <b>Ilkley and Winstanley.—</b>                                       |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 5,118.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 11·9       | 12·4                                               | 0·76                   | 0·92                    | 8·86                                    | —                                                   | 97  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 13·3       | 11·7                                               | 0·89                   | 1·17                    | 14·70                                   | 13·51                                               | 44  |
| 1933                                                                 |  |  |  |  | ...                               | 12·8       | 11·1                                               | 0·58                   | 1·36                    | nil                                     | nil                                                 | 75  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | +0·9       | −1·3                                               | −0·18                  | +0·44                   | −8·86                                   | —                                                   | −22 |
| Previous year                                                        |  |  |  |  | ...                               | −0·5       | −0·6                                               | +0·19                  | +0·19                   | −14·70                                  | −13·51                                              | +31 |
| <b>Lackrood.—</b>                                                    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 3,564.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 15·2       | 11·1                                               | 0·42                   | 1·01                    | nil                                     | —                                                   | 51  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 16·0       | 8·0                                                | 0·27                   | 1·10                    | nil                                     | nil                                                 | 51  |
| 1933                                                                 |  |  |  |  | ...                               | 14·3       | 11·2                                               | 0·56                   | 1·12                    | 19·60                                   | 18·86                                               | 58  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −0·9       | +0·1                                               | +0·14                  | +0·11                   | +19·60                                  | —                                                   | +7  |
| Previous year                                                        |  |  |  |  | ...                               | −1·7       | +3·2                                               | +0·29                  | +0·02                   | +19·60                                  | +18·86                                              | +7  |
| <b>Brierfield.—</b>                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 7,652.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 10·9       | 11·5                                               | 0·62                   | 1·79                    | 2·04                                    | —                                                   | 53  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 10·7       | 12·1                                               | 1·16                   | 1·42                    | nil                                     | nil                                                 | 60  |
| 1933                                                                 |  |  |  |  | ...                               | 9·0        | 16·7                                               | 0·52                   | 1·43                    | 14·49                                   | 13·88                                               | 130 |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −1·9       | +5·2                                               | −0·10                  | −0·36                   | +12·45                                  | —                                                   | +77 |
| Previous year                                                        |  |  |  |  | ...                               | −1·7       | +4·6                                               | −0·64                  | +0·01                   | +14·49                                  | +13·88                                              | +70 |
| <b>Carnforth.—</b>                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 3,229.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 16·9       | 14·9                                               | 1·00                   | 1·32                    | nil                                     | —                                                   | 78  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 16·1       | 14·9                                               | 1·21                   | 0·60                    | nil                                     | nil                                                 | 75  |
| 1933                                                                 |  |  |  |  | ...                               | 13·6       | 11·1                                               | nil                    | 1·23                    | 22·72                                   | 21·73                                               | 45  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −3·3       | −3·8                                               | −1·00                  | −0·09                   | +22·72                                  | —                                                   | −33 |
| Previous year                                                        |  |  |  |  | ...                               | −2·5       | −3·8                                               | −1·21                  | +0·63                   | +22·72                                  | +21·73                                              | −30 |
| <b>Chadderton.—</b>                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 27,670.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 12·3       | 13·5                                               | 0·61                   | 1·62                    | 2·82                                    | —                                                   | 81  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12·5       | 13·5                                               | 0·61                   | 2·02                    | 2·89                                    | 2·75                                                | 60  |
| 1933                                                                 |  |  |  |  | ...                               | 10·8       | 13·3                                               | 0·57                   | 1·33                    | 6·64                                    | 6·36                                                | 66  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −1·5       | −0·2                                               | −0·04                  | −0·29                   | +3·82                                   | —                                                   | −15 |
| Previous year                                                        |  |  |  |  | ...                               | −1·7       | −0·2                                               | −0·04                  | −0·69                   | +3·75                                   | +3·61                                               | +6  |
| Birth and Death rates for 1933 calculated on a population of 27,650. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |

Birth and Death rates for 1933 calculated on a population of 27,650.



|                                  |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Birth |     |
|----------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|----------------------------------------------------|-----|
|                                  |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                    |     |
| <b>Chorley (Borough).—</b>       |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 30,520.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 14.6       | 13.1                                               | 0.47                   | 1.55                    | 7.37                                    | —                                                  | 75  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                             |  |  |  |  | ...                               | 14.2       | 13.2                                               | 0.45                   | 1.85                    | 4.57                                    | 4.22                                               | 70  |
| 1933                             |  |  |  |  | ...                               | 13.4       | 13.2                                               | 0.42                   | 1.40                    | 4.85                                    | 4.58                                               | 99  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1.2       | +0.1                                               | −0.05                  | −0.15                   | −2.52                                   | —                                                  | +24 |
| Previous year                    |  |  |  |  | ...                               | −0.8       | nil                                                | −0.03                  | −0.45                   | +0.28                                   | +0.36                                              | +29 |
| <b>Church.—</b>                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 6,030.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 11.6       | 13.5                                               | 0.43                   | 1.90                    | 8.08                                    | —                                                  | 75  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                             |  |  |  |  | ...                               | 9.4        | 11.8                                               | 0.81                   | 1.79                    | nil                                     | nil                                                | 68  |
| 1933                             |  |  |  |  | ...                               | 11.2       | 15.4                                               | 0.49                   | 2.32                    | 14.70                                   | 14.08                                              | 58  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −0.4       | +1.9                                               | +0.06                  | +0.42                   | +6.62                                   | —                                                  | −17 |
| Previous year                    |  |  |  |  | ...                               | +1.8       | +3.6                                               | −0.32                  | +0.53                   | +14.70                                  | +14.08                                             | −10 |
| <b>Clayton-le-Moors.—</b>        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 7,650.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 13.4       | 12.5                                               | 0.48                   | 1.25                    | 6.71                                    | —                                                  | 98  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                             |  |  |  |  | ...                               | 13.4       | 14.7                                               | 0.25                   | 2.19                    | nil                                     | nil                                                | 105 |
| 1933                             |  |  |  |  | ...                               | 11.7       | 13.9                                               | 0.13                   | 2.35                    | 11.11                                   | 10.63                                              | 88  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1.7       | +1.4                                               | −0.35                  | +1.10                   | +4.40                                   | —                                                  | −10 |
| Previous year                    |  |  |  |  | ...                               | −1.7       | −0.8                                               | −0.12                  | +0.16                   | +11.11                                  | +10.63                                             | −17 |
| <b>Clitheroe (Borough).—</b>     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 11,870.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 12.0       | 12.7                                               | 0.49                   | 1.40                    | 6.74                                    | —                                                  | 53  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                             |  |  |  |  | ...                               | 11.6       | 13.1                                               | 0.66                   | 1.33                    | 7.14                                    | 6.89                                               | 71  |
| 1933                             |  |  |  |  | ...                               | 12.5       | 13.2                                               | 0.16                   | 1.43                    | 13.42                                   | 12.98                                              | 33  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | +0.5       | +0.5                                               | −0.33                  | +0.03                   | +6.68                                   | —                                                  | −20 |
| Previous year                    |  |  |  |  | ...                               | +0.9       | +0.1                                               | −0.50                  | +0.10                   | +6.28                                   | +6.09                                              | −38 |
| <b>Colne (Borough).—</b>         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 23,380.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 12.6       | 13.5                                               | 0.64                   | 1.54                    | 5.81                                    | —                                                  | 84  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                             |  |  |  |  | ...                               | 12.8       | 13.7                                               | 0.38                   | 2.03                    | 6.60                                    | 6.21                                               | 75  |
| 1933                             |  |  |  |  | ...                               | 11.9       | 14.7                                               | 0.76                   | 1.88                    | 7.16                                    | 6.87                                               | 100 |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −0.7       | +1.2                                               | +0.12                  | +0.34                   | +1.35                                   | —                                                  | +16 |
| Previous year                    |  |  |  |  | ...                               | −0.9       | +1.0                                               | +0.38                  | −0.15                   | +0.56                                   | +0.66                                              | +25 |

|                                  |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                  |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| Compton.—                        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 14,560.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 12·8       | 13·1                                               | 0·58                   | 1·53                    | 6·02                                    | —                                                   | 70  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 12·4       | 12·5                                               | 0·68                   | 1·36                    | 5·46                                    | 5·18                                                | 76  |
| 1933                             |  |  |  |  | ...                               | 11·1       | 13·9                                               | 0·48                   | 1·03                    | 12·34                                   | 11·90                                               | 61  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  |                                   | −1·7       | +0·8                                               | −0·10                  | −0·50                   | +6·32                                   | —                                                   | −9  |
| Previous year                    |  |  |  |  | ...                               | −1·3       | +1·4                                               | −0·20                  | −0·33                   | +6·88                                   | +6·72                                               | −15 |
| Coston.—                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 1,878.               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 11·2       | 12·0                                               | 0·09                   | 1·51                    | 13·33                                   | —                                                   | 88  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 11·0       | 11·5                                               | nil                    | 1·05                    | nil                                     | nil                                                 | nil |
| 1933                             |  |  |  |  | ...                               | 8·5        | 15·4                                               | 0·53                   | 2·66                    | nil                                     | nil                                                 | nil |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −2·7       | +3·4                                               | +0·44                  | +1·15                   | −13·33                                  | —                                                   | −88 |
| Previous year                    |  |  |  |  | ...                               | −2·5       | +3·9                                               | +0·53                  | +1·61                   | nil                                     | nil                                                 | nil |
| Elton-in-Furness.—               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 10,270.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 16·7       | 14·2                                               | 1·05                   | 1·62                    | 3·47                                    | —                                                   | 76  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 15·2       | 15·0                                               | 1·06                   | 1·93                    | nil                                     | nil                                                 | 75  |
| 1933                             |  |  |  |  | ...                               | 14·9       | 15·5                                               | 1·26                   | 1·26                    | 19·48                                   | 18·29                                               | 71  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1·8       | +1·3                                               | +0·21                  | −0·36                   | +16·01                                  | —                                                   | −5  |
| Previous year                    |  |  |  |  | ...                               | −0·3       | +0·5                                               | +0·20                  | −0·67                   | +19·48                                  | +18·29                                              | −4  |
| Erwen (Borough).—                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 34,870.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 11·8       | 14·1                                               | 0·38                   | 1·88                    | 10·07                                   | —                                                   | 70  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 11·1       | 14·8                                               | 0·36                   | 2·44                    | 15·07                                   | 13·95                                               | 47  |
| 1933                             |  |  |  |  | ...                               | 10·2       | 14·3                                               | 0·40                   | 1·80                    | 11·14                                   | 10·38                                               | 69  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −1·6       | +0·2                                               | +0·02                  | −0·08                   | +1·07                                   | —                                                   | −1  |
| Previous year                    |  |  |  |  | ...                               | −0·9       | −0·5                                               | +0·04                  | −0·64                   | −3·93                                   | −3·57                                               | +22 |
| Inton.—                          |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 17,870.              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ...                               | 11·8       | 13·4                                               | 0·53                   | 2·00                    | 5·60                                    | —                                                   | 68  |
| Year—                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                             |  |  |  |  | ...                               | 10·9       | 13·8                                               | 0·51                   | 2·21                    | nil                                     | nil                                                 | 72  |
| 1933                             |  |  |  |  | ...                               | 11·1       | 12·9                                               | 0·55                   | 1·28                    | 10·05                                   | 9·38                                                | 80  |
| Increase or decrease in 1933 on— |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932      |  |  |  |  | ...                               | −0·7       | −0·5                                               | +0·02                  | −0·72                   | +4·45                                   | —                                                   | +12 |
| Previous year                    |  |  |  |  | ...                               | +0·2       | −0·9                                               | +0·04                  | −0·93                   | +10·05                                  | +9·38                                               | +8  |



|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| <b>Droylsden.—</b>                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 15,110.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 14.4       | 12.0                                               | 0.81                   | 1.63                    | 3.98                                    | —                                                   | 57  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12.0       | 10.6                                               | 0.55                   | 1.04                    | nil                                     | nil                                                 | 46  |
| 1933                                                                 |  |  |  |  | ...                               | 13.0       | 13.1                                               | 0.72                   | 1.78                    | 10.15                                   | 9.38                                                | 71  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −1.4       | +1.1                                               | −0.09                  | +0.15                   | +6.17                                   | —                                                   | +14 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | +1.0       | +2.5                                               | +0.17                  | +0.74                   | +10.15                                  | +9.38                                               | +25 |
| Birth and death rates for 1933 calculated on a population of 15,100. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Eccles (Borough).—</b>                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 43,970.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 14.4       | 11.8                                               | 0.64                   | 1.51                    | 3.69                                    | —                                                   | 70  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 13.1       | 11.5                                               | 0.59                   | 1.68                    | 5.19                                    | 4.95                                                | 72  |
| 1933                                                                 |  |  |  |  | ...                               | 12.2       | 11.0                                               | 0.61                   | 1.34                    | 5.59                                    | 5.25                                                | 52  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −2.2       | −0.8                                               | −0.03                  | −0.17                   | +1.90                                   | —                                                   | −18 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | −0.9       | −0.5                                               | +0.02                  | −0.34                   | +0.40                                   | +0.30                                               | −20 |
| Birth and death rates for 1933 calculated on a population of 43,850. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Failsworth.—</b>                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 15,800.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 13.3       | 11.5                                               | 0.56                   | 1.42                    | 7.31                                    | —                                                   | 75  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 13.3       | 10.0                                               | 0.63                   | 1.26                    | 4.71                                    | 4.52                                                | 84  |
| 1933                                                                 |  |  |  |  | ...                               | 11.9       | 13.2                                               | 0.75                   | 1.51                    | nil                                     | nil                                                 | 84  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −1.4       | +1.7                                               | +0.19                  | +0.09                   | −7.31                                   | —                                                   | +9  |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | −1.4       | +3.2                                               | +0.12                  | +0.25                   | −4.71                                   | −4.52                                               | nil |
| <b>Farnworth.—</b>                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 28,300.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 13.7       | 12.3                                               | 0.60                   | 1.39                    | 4.45                                    | —                                                   | 83  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 14.2       | 11.3                                               | 0.35                   | 1.31                    | 2.49                                    | 2.36                                                | 89  |
| 1933                                                                 |  |  |  |  | ...                               | 11.5       | 14.2                                               | 0.42                   | 1.87                    | 9.14                                    | 8.49                                                | 97  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −2.2       | +1.9                                               | −0.18                  | +0.48                   | +4.69                                   | —                                                   | +14 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | −2.7       | +2.9                                               | +0.07                  | +0.56                   | +6.65                                   | +6.13                                               | +8  |
| <b>Fleetwood (Borough).—</b>                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 23,430.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 20.1       | 10.8                                               | 0.53                   | 1.17                    | 6.56                                    | —                                                   | 69  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 20.0       | 9.0                                                | 0.43                   | 0.99                    | 4.32                                    | 4.19                                                | 67  |
| 1933                                                                 |  |  |  |  | ...                               | 18.2       | 10.3                                               | 0.76                   | 0.81                    | 4.67                                    | 4.46                                                | 81  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −1.9       | −0.5                                               | +0.23                  | −0.36                   | −1.89                                   | —                                                   | +12 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | −1.8       | +1.3                                               | +0.33                  | −0.18                   | +0.35                                   | +0.27                                               | +14 |

|                                                                     |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|---------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                     |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| Armbury.—                                                           |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 8,448.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                          |  |  |  |  | ...                               | 12·6       | 11·0                                               | 0·55                   | 1·68                    | 6·03                                    | —                                                   | 50  |
| Year—                                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                |  |  |  |  | ...                               | 11·6       | 12·4                                               | 0·84                   | 1·33                    | 20·83                                   | 20·20                                               | 31  |
| 1933                                                                |  |  |  |  | ...                               | 12·6       | 11·0                                               | 0·59                   | 1·30                    | nil                                     | nil                                                 | 84  |
| Increase or decrease in 1933 on—                                    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                         |  |  |  |  | ...                               | nil        | nil                                                | +0·04                  | —0·38                   | —6·03                                   | —                                                   | +34 |
| Previous year                                                       |  |  |  |  | ...                               | +1·0       | —1·4                                               | —0·25                  | —0·03                   | —20·83                                  | —20·20                                              | +53 |
| Blwood.—                                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 7,548.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                          |  |  |  |  | ...                               | 9·7        | 12·7                                               | 0·22                   | 1·56                    | nil                                     | —                                                   | 56  |
| Year—                                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                |  |  |  |  | ...                               | 11·0       | 12·5                                               | 0·27                   | 1·81                    | nil                                     | nil                                                 | 25  |
| 1933                                                                |  |  |  |  | ...                               | 7·9        | 13·1                                               | nil                    | 1·98                    | nil                                     | nil                                                 | 50  |
| Increase or decrease in 1933 on—                                    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                         |  |  |  |  | ...                               | —1·8       | +0·4                                               | —0·22                  | +0·42                   | nil                                     | —                                                   | —6  |
| Previous year                                                       |  |  |  |  | ...                               | —3·1       | +0·6                                               | —0·27                  | +0·17                   | nil                                     | nil                                                 | +25 |
| Colborne.—                                                          |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 14,095.                                                 |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                          |  |  |  |  | ...                               | 17·6       | 11·5                                               | 0·63                   | 0·88                    | 3·14                                    | —                                                   | 81  |
| Year—                                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                |  |  |  |  | ...                               | 17·0       | 10·1                                               | 0·79                   | 0·53                    | nil                                     | nil                                                 | 78  |
| 1933                                                                |  |  |  |  | ...                               | 16·1       | 10·0                                               | 0·86                   | 0·86                    | 6·13                                    | 5·78                                                | 42  |
| Increase or decrease in 1933 on—                                    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                         |  |  |  |  | ...                               | —1·5       | —1·5                                               | +0·23                  | —0·02                   | +2·99                                   | —                                                   | —39 |
| Previous year                                                       |  |  |  |  | ...                               | —0·9       | —0·1                                               | +0·07                  | +0·33                   | +6·13                                   | +5·78                                               | —36 |
| Birth and death rates for 1933 calculated on a population of 9,235. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Crane-over-Sands.—                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 2,332.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                          |  |  |  |  | ...                               | 6·3        | 15·3                                               | 0·51                   | 2·42                    | nil                                     | —                                                   | 39  |
| Year—                                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                |  |  |  |  | ...                               | 6·7        | 13·4                                               | nil                    | 2·93                    | nil                                     | nil                                                 | nil |
| 1933                                                                |  |  |  |  | ...                               | 3·4        | 18·0                                               | 0·42                   | 2·14                    | 250·00                                  | 200·00                                              | nil |
| Increase or decrease in 1933 on—                                    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                         |  |  |  |  | ...                               | —2·9       | +2·7                                               | —0·09                  | —0·28                   | +250·00                                 | —                                                   | —39 |
| Previous year                                                       |  |  |  |  | ...                               | —3·3       | +4·6                                               | +0·42                  | —0·79                   | +250·00                                 | +200·00                                             | nil |
| Great Crosby.—                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 22,170.                                                 |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                          |  |  |  |  | ...                               | 11·9       | 10·0                                               | 0·40                   | 1·45                    | 2·59                                    | —                                                   | 51  |
| Year—                                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                |  |  |  |  | ...                               | 11·4       | 8·7                                                | 0·43                   | 1·16                    | 8·47                                    | 7·93                                                | 50  |
| 1933                                                                |  |  |  |  | ...                               | 12·1       | 10·4                                               | 0·31                   | 1·80                    | nil                                     | nil                                                 | 74  |
| Increase or decrease in 1933 on—                                    |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                         |  |  |  |  | ...                               | +0·2       | +0·4                                               | —0·09                  | +0·35                   | —2·59                                   | —                                                   | +23 |
| Previous year                                                       |  |  |  |  | ...                               | +0·7       | +1·7                                               | —0·12                  | +0·64                   | —8·47                                   | —7·93                                               | +24 |



|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| Great Harwood.—                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 12,310.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 12·2       | 12·6                                               | 0·44                   | 1·43                    | 6·38                                    | —                                                   | 70  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 9·2        | 13·7                                               | 0·55                   | 1·74                    | 8·54                                    | 7·46                                                | 85  |
| 1933                                                                 |  |  |  |  | ...                               | 12·0       | 13·2                                               | 0·24                   | 1·38                    | nil                                     | nil                                                 | 81  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | -0·2       | +0·6                                               | -0·20                  | -0·05                   | -6·38                                   | —                                                   | +11 |
| Previous year                                                        |  |  |  |  | ...                               | +2·8       | -0·5                                               | -0·31                  | -0·36                   | -8·54                                   | -7·46                                               | -4  |
| Haslingden (Borough).—                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 16,280.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 10·7       | 14·0                                               | 1·02                   | 1·61                    | 7·60                                    | —                                                   | 81  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 10·6       | 15·0                                               | 0·72                   | 1·57                    | 5·68                                    | 5·20                                                | 45  |
| 1933                                                                 |  |  |  |  | ...                               | 9·8        | 15·6                                               | 0·30                   | 1·47                    | 18·75                                   | 17·96                                               | 93  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1933                                          |  |  |  |  | ...                               | -0·9       | +1·6                                               | -0·72                  | -0·14                   | +11·15                                  | —                                                   | +12 |
| Previous year                                                        |  |  |  |  | ...                               | -0·8       | +0·6                                               | -0·42                  | -0·10                   | +13·07                                  | +12·76                                              | +48 |
| Haydock.—                                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 10,290.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 19·7       | 10·6                                               | 0·56                   | 0·60                    | 4·93                                    | —                                                   | 84  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 20·0       | 9·0                                                | 0·67                   | 0·48                    | nil                                     | nil                                                 | 62  |
| 1933                                                                 |  |  |  |  | ...                               | 17·0       | 14·2                                               | 0·29                   | 0·29                    | 11·42                                   | 10·9                                                | 97  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | -2·7       | +3·6                                               | -0·27                  | -0·31                   | +6·49                                   | —                                                   | +13 |
| Previous year                                                        |  |  |  |  | ...                               | -3·0       | +5·2                                               | -0·38                  | -0·19                   | +11·42                                  | +10·9                                               | +35 |
| Heywood (Borough).—                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 26,389.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 14·0       | 14·8                                               | 0·70                   | 1·66                    | 7·23                                    | —                                                   | 74  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12·3       | 15·2                                               | 0·92                   | 1·58                    | 12·50                                   | 11·97                                               | 56  |
| 1933                                                                 |  |  |  |  | ...                               | 11·7       | 14·9                                               | 0·54                   | 1·73                    | 3·27                                    | 3·02                                                | 75  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | -2·3       | +0·1                                               | -0·16                  | +0·07                   | -3·96                                   | —                                                   | +1  |
| Previous year                                                        |  |  |  |  | ...                               | -0·6       | -0·3                                               | -0·38                  | +0·15                   | -9·23                                   | -8·95                                               | +19 |
| Birth and death-rates for 1933 calculated on a population of 25,870. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Hindley.—                                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 21,170.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 15·0       | 13·3                                               | 0·77                   | 1·33                    | 6·96                                    | —                                                   | 96  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 15·0       | 13·9                                               | 0·88                   | 1·30                    | 3·10                                    | 2·94                                                | 96  |
| 1933                                                                 |  |  |  |  | ...                               | 15·3       | 15·5                                               | 0·70                   | 1·65                    | 6·17                                    | 5·63                                                | 141 |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | +0·3       | +2·2                                               | -0·07                  | +0·32                   | -0·79                                   | —                                                   | +45 |
| Previous year                                                        |  |  |  |  | ...                               | +0·3       | +1·6                                               | -0·18                  | +0·35                   | +3·07                                   | +2·69                                               | +45 |

|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
|                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Irwich.—</b>                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 15,320.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 12·8       | 11·5                                               | 0·46                   | 1·59                    | 6·57                                    | —                                                   | 68  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12·0       | 12·2                                               | 0·44                   | 1·92                    | 5·34                                    | 5·26                                                | 48  |
| 1933                                                                 |  |  |  |  | ...                               | 11·9       | 11·6                                               | 0·52                   | 1·10                    | 5·46                                    | 5·29                                                | 49  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −0·9       | +0·1                                               | +0·06                  | −0·49                   | −1·11                                   | —                                                   | −19 |
| Previous year                                                        |  |  |  |  | ...                               | −0·1       | −0·6                                               | +0·08                  | −0·82                   | +0·12                                   | +0·03                                               | +1  |
|                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Lynton-with-Roby.—</b>                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 5,629.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 11·2       | 10·9                                               | 0·60                   | 1·21                    | 3·12                                    | —                                                   | 56  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12·0       | 10·5                                               | 0·36                   | 1·27                    | nil                                     | nil                                                 | nil |
| 1933                                                                 |  |  |  |  | ...                               | 11·1       | 10·6                                               | 0·35                   | 1·06                    | nil                                     | nil                                                 | 31  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −0·1       | −0·3                                               | −0·25                  | −0·15                   | −3·12                                   | —                                                   | −25 |
| Previous year                                                        |  |  |  |  | ...                               | −0·9       | +0·1                                               | −0·01                  | −0·21                   | nil                                     | nil                                                 | +31 |
|                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Pease-in-Makerfield.—</b>                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 22,240.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 20·1       | 13·1                                               | 0·78                   | 0·82                    | 3·87                                    | —                                                   | 106 |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 19·5       | 12·0                                               | 0·73                   | 0·73                    | nil                                     | nil                                                 | 84  |
| 1933                                                                 |  |  |  |  | ...                               | 20·6       | 15·5                                               | 0·89                   | 1·03                    | 10·86                                   | 10·20                                               | 123 |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | +0·5       | +2·4                                               | +0·11                  | +0·21                   | +6·99                                   | —                                                   | +17 |
| Previous year                                                        |  |  |  |  | ...                               | +1·1       | +3·5                                               | +0·16                  | +0·30                   | +10·86                                  | +10·20                                              | +39 |
|                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Stam.—</b>                                                        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 13,030.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 17·0       | 9·5                                                | 0·58                   | 1·03                    | 7·32                                    | —                                                   | 59  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 18·0       | 10·9                                               | 0·53                   | 1·15                    | 4·25                                    | 4·06                                                | 63  |
| 1933                                                                 |  |  |  |  | ...                               | 15·7       | 11·3                                               | 0·68                   | 1·07                    | 4·87                                    | 4·76                                                | 48  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −1·3       | +1·8                                               | +0·10                  | +0·04                   | −2·45                                   | —                                                   | −11 |
| Previous year                                                        |  |  |  |  | ...                               | −2·3       | +0·4                                               | +0·15                  | −0·08                   | +0·62                                   | +0·70                                               | −15 |
|                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Worsley.—</b>                                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 11,095.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 13·8       | 11·6                                               | 0·70                   | 1·05                    | 1·42                                    | —                                                   | 54  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 15·1       | 11·4                                               | 0·30                   | 1·63                    | nil                                     | nil                                                 | 33  |
| 1933                                                                 |  |  |  |  | ...                               | 12·9       | 15·4                                               | 0·55                   | 2·14                    | 7·19                                    | 6·62                                                | 43  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −0·9       | +3·8                                               | −0·15                  | +1·09                   | +5·77                                   | —                                                   | −11 |
| Previous year                                                        |  |  |  |  | ...                               | −2·2       | +4·0                                               | +0·25                  | +0·51                   | +7·19                                   | +6·62                                               | +10 |
| Birth and death rates for 1933 calculated on a population of 10,740. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |



|                                         |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|-----------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                         |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
|                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Kirkham.—</b>                        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 4,084.                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...                               | 15.6       | 13.3                                               | 0.96                   | 1.06                    | 3.22                                    | —                                                   | 59  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                    |  |  |  |  | ...                               | 14.4       | 12.9                                               | 0.24                   | 0.24                    | nil                                     | nil                                                 | 16  |
| 1933                                    |  |  |  |  | ...                               | 16.6       | 12.9                                               | 0.73                   | 0.97                    | nil                                     | nil                                                 | 58  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...                               | +1.0       | —0.4                                               | —0.23                  | —0.09                   | —3.22                                   | —                                                   | —1  |
| <i>Previous year</i>                    |  |  |  |  | ...                               | +2.2       | nil                                                | +0.49                  | +0.73                   | nil                                     | nil                                                 | +42 |
|                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Lancaster (Borough).—</b>            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 44,470.                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...                               | 15.1       | 12.6                                               | 0.60                   | 1.54                    | 4.96                                    | —                                                   | 75  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                    |  |  |  |  | ...                               | 13.9       | 12.3                                               | 0.61                   | 1.37                    | 3.28                                    | 3.11                                                | 88  |
| 1933                                    |  |  |  |  | ...                               | 14.1       | 12.6                                               | 0.71                   | 1.41                    | 4.77                                    | 4.58                                                | 66  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...                               | —1.0       | nil                                                | +0.11                  | —0.13                   | —0.19                                   | —                                                   | —9  |
| <i>Previous year</i>                    |  |  |  |  | ...                               | +0.2       | +0.3                                               | +0.10                  | +0.04                   | +1.49                                   | +1.47                                               | —22 |
|                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Lees.—</b>                           |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 4,602.                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...                               | 13.0       | 15.1                                               | 0.44                   | 1.88                    | 9.74                                    | —                                                   | 62  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                    |  |  |  |  | ...                               | 12.5       | 14.8                                               | 0.21                   | 2.33                    | 16.94                                   | 16.12                                               | 16  |
| 1933                                    |  |  |  |  | ...                               | 10.6       | 14.7                                               | 0.65                   | 1.52                    | nil                                     | nil                                                 | 81  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...                               | —2.4       | —0.4                                               | +0.21                  | —0.36                   | —9.74                                   | —                                                   | +19 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —1.9       | —0.1                                               | +0.44                  | —0.81                   | —16.94                                  | —16.12                                              | +65 |
|                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Leigh (Borough).—</b>                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 45,190.                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...                               | 14.9       | 12.7                                               | 0.61                   | 1.39                    | 4.60                                    | —                                                   | 92  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                    |  |  |  |  | ...                               | 14.8       | 13.0                                               | 0.39                   | 1.69                    | 5.93                                    | 5.60                                                | 84  |
| 1933                                    |  |  |  |  | ...                               | 14.5       | 13.8                                               | 0.68                   | 1.39                    | 1.52                                    | 1.42                                                | 77  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...                               | —0.4       | +1.1                                               | +0.07                  | nil                     | —3.08                                   | —                                                   | —15 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —0.3       | +0.8                                               | +0.29                  | —0.30                   | —4.41                                   | —4.18                                               | —7  |
|                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Leyland.—</b>                        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 10,960.                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...                               | 15.1       | 11.8                                               | 0.30                   | 1.28                    | 7.50                                    | —                                                   | 63  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                    |  |  |  |  | ...                               | 15.1       | 11.3                                               | 0.46                   | 1.76                    | 6.09                                    | 5.55                                                | 91  |
| 1933                                    |  |  |  |  | ...                               | 12.0       | 12.8                                               | 0.54                   | 1.18                    | 7.57                                    | 6.99                                                | 75  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...                               | —3.1       | +1.0                                               | +0.24                  | —0.10                   | +0.07                                   | —                                                   | +12 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —3.1       | +1.5                                               | +0.08                  | —0.58                   | +1.48                                   | +1.44                                               | —16 |

|                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| therland.—                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 16,620.                                                                                                                                                                                                                                                                                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                                                                                                                                                                                                                                                                                                         |  |  |  |  | ...                               | 18·8       | 11·8                                               | 1·11                   | 1·22                    | 6·18                                    | —                                                   | 78  |
| Year—                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 18·5       | 11·0                                               | 0·96                   | 1·57                    | nil                                     | nil                                                 | 58  |
| 1933                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 18·1       | 13·6                                               | 1·44                   | 1·80                    | 6·64                                    | 6·49                                                | 93  |
| Increase or decrease in 1933 on—                                                                                                                                                                                                                                                                                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                                                                                                                                                                                                                                                                                                        |  |  |  |  | ...                               | −0·7       | +1·8                                               | +0·33                  | +0·58                   | +0·46                                   | —                                                   | +15 |
| Previous year                                                                                                                                                                                                                                                                                                                                      |  |  |  |  | ...                               | −0·4       | +2·6                                               | +0·48                  | +0·23                   | +6·64                                   | +6·49                                               | +35 |
| ttleborough.—                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 11,880.                                                                                                                                                                                                                                                                                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                                                                                                                                                                                                                                                                                                         |  |  |  |  | ...                               | 14·3       | 14·5                                               | 0·33                   | 1·66                    | 3·31                                    | —                                                   | 67  |
| Year—                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 12·2       | 13·4                                               | 0·24                   | 1·33                    | nil                                     | nil                                                 | 47  |
| 1933                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 11·1       | 15·1                                               | 0·33                   | 2·01                    | nil                                     | nil                                                 | 37  |
| Increase or decrease in 1933 on—                                                                                                                                                                                                                                                                                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                                                                                                                                                                                                                                                                                                        |  |  |  |  | ...                               | −3·2       | +0·6                                               | nil                    | +0·35                   | −3·31                                   | —                                                   | −30 |
| Previous year                                                                                                                                                                                                                                                                                                                                      |  |  |  |  | ...                               | −1·1       | +1·7                                               | +0·09                  | +0·68                   | nil                                     | nil                                                 | −10 |
| ittle Hulton.—                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                                                                                                                                                                                                                                                                                                         |  |  |  |  | ...                               | 13·4       | 11·6                                               | 0·45                   | 1·19                    | 14·90                                   | —                                                   | 70  |
| Year—                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 11·8       | 13·1                                               | 0·64                   | 1·03                    | 10·98                                   | 10·41                                               | 76  |
| 1933                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 17·8       | 15·7                                               | 2·10                   | 0·52                    | nil                                     | nil                                                 | 147 |
| * On the 1st April, 1933, the Urban District of Little Hulton was amalgamated with the Urban District of Worsley.<br>The birth and death rates for 1933 are calculated per 1,000 of the population per annum on an estimated population supplied by the Registrar-General; the rates are based on the births and deaths in the first quarter only. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| ittle Lever.—                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 4,900.                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                                                                                                                                                                                                                                                                                                         |  |  |  |  | ...                               | 12·8       | 13·1                                               | 0·46                   | 1·36                    | 6·45                                    | —                                                   | 77  |
| Year—                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 12·2       | 13·4                                               | 0·20                   | 1·20                    | 16·39                                   | 15·62                                               | 49  |
| 1933                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 12·8       | 15·7                                               | 0·40                   | 1·22                    | 15·87                                   | 15·15                                               | 63  |
| Increase or decrease in 1933 on—                                                                                                                                                                                                                                                                                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                                                                                                                                                                                                                                                                                                        |  |  |  |  | ...                               | nil        | +2·6                                               | −0·06                  | −0·14                   | +9·42                                   | —                                                   | −14 |
| Previous year                                                                                                                                                                                                                                                                                                                                      |  |  |  |  | ...                               | +0·6       | +2·3                                               | +0·20                  | +0·02                   | −0·52                                   | −0·47                                               | +14 |
| Ingridge.—                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 4,116.                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                                                                                                                                                                                                                                                                                                         |  |  |  |  | ...                               | 15·9       | 14·9                                               | 0·47                   | 1·42                    | 24·12                                   | —                                                   | 72  |
| Year—                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 15·4       | 18·1                                               | 0·72                   | 1·44                    | 62·50                                   | 59·70                                               | 31  |
| 1933                                                                                                                                                                                                                                                                                                                                               |  |  |  |  | ...                               | 11·1       | 13·6                                               | 1·21                   | 1·45                    | 21·73                                   | 21·73                                               | 43  |
| Increase or decrease in 1933 on—                                                                                                                                                                                                                                                                                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                                                                                                                                                                                                                                                                                                        |  |  |  |  | ...                               | −4·8       | −1·3                                               | +0·74                  | +0·03                   | −2·39                                   | —                                                   | −29 |
| Previous year                                                                                                                                                                                                                                                                                                                                      |  |  |  |  | ...                               | −4·3       | −4·5                                               | +0·49                  | +0·01                   | −40·77                                  | −37·97                                              | +12 |



|                                          |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |             |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |           |
|------------------------------------------|--|--|--|--|-----------------------------------|-------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----------|
|                                          |  |  |  |  | Live Birth-rate                   | Death-rate  | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |           |
| <b>Lytham Saint Anne's (Borough).—</b>   |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Population, 24,910.                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Mean of 5 years, 1928–1932               |  |  |  |  | ...                               | 8.6         | 13.3                                               | 0.41                   | 1.89                    | 7.95                                    | —                                                   | 36        |
| Year—                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 1932                                     |  |  |  |  | ...                               | 8.6         | 13.4                                               | 0.47                   | 1.39                    | 9.17                                    | 8.88                                                | 13        |
| <b>1933</b>                              |  |  |  |  | ...                               | <b>8.1</b>  | <b>16.4</b>                                        | <b>0.48</b>            | <b>2.16</b>             | <b>14.70</b>                            | <b>14.01</b>                                        | <b>53</b> |
| Increase or decrease in 1933 on—         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 5 years' average, 1928–1932              |  |  |  |  | ...                               | −0.5        | +3.1                                               | +0.07                  | +0.27                   | +6.75                                   | —                                                   | +17       |
| Previous year                            |  |  |  |  | ...                               | −0.5        | +3.0                                               | +0.01                  | +0.77                   | +5.53                                   | +5.13                                               | +40       |
| <b>Middleton (Borough).—</b>             |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Population, 29,010.                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Mean of 5 years, 1928–1932               |  |  |  |  | ...                               | 14.1        | 13.4                                               | 0.59                   | 1.44                    | 6.32                                    | —                                                   | 76        |
| Year—                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 1932                                     |  |  |  |  | ...                               | 14.0        | 12.9                                               | 0.51                   | 1.47                    | 7.33                                    | 7.00                                                | 80        |
| <b>1933</b>                              |  |  |  |  | ...                               | <b>12.8</b> | <b>14.2</b>                                        | <b>0.55</b>            | <b>1.89</b>             | <b>5.36</b>                             | <b>5.11</b>                                         | <b>61</b> |
| Increase or decrease in 1933 on—         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 5 years' average, 1928–1932              |  |  |  |  | ...                               | −1.3        | +0.8                                               | −0.04                  | +0.45                   | −0.96                                   | —                                                   | −15       |
| Previous year                            |  |  |  |  | ...                               | −1.2        | +1.3                                               | +0.04                  | +0.42                   | −1.97                                   | −1.89                                               | −19       |
| <b>Milnrow.—</b>                         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Population, 8,460.                       |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Mean of 5 years, 1928–1932               |  |  |  |  | ...                               | 11.6        | 13.7                                               | 0.43                   | 1.42                    | 4.08                                    | —                                                   | 38        |
| Year—                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 1932                                     |  |  |  |  | ...                               | 11.3        | 15.5                                               | 0.23                   | 1.75                    | nil                                     | nil                                                 | 61        |
| <b>1933</b>                              |  |  |  |  | ...                               | <b>13.8</b> | <b>15.7</b>                                        | <b>0.47</b>            | <b>1.53</b>             | <b>nil</b>                              | <b>nil</b>                                          | <b>59</b> |
| Increase or decrease in 1933 on—         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 5 years' average, 1928–1932              |  |  |  |  | ...                               | +2.2        | +2.0                                               | +0.04                  | +0.11                   | −4.08                                   | —                                                   | +21       |
| Previous year                            |  |  |  |  | ...                               | +2.5        | +0.2                                               | +0.24                  | −0.22                   | nil                                     | nil                                                 | −2        |
| <b>Morecambe and Heysham (Borough).—</b> |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Population, 26,040.                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Mean of 5 years, 1928–1932               |  |  |  |  | ...                               | 10.5        | 15.3                                               | 0.52                   | 1.72                    | 5.35                                    | —                                                   | 54        |
| Year—                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 1932                                     |  |  |  |  | ...                               | 11.1        | 15.6                                               | 0.48                   | 1.61                    | 7.24                                    | 6.96                                                | 50        |
| <b>1933</b>                              |  |  |  |  | ...                               | <b>9.2</b>  | <b>15.8</b>                                        | <b>0.30</b>            | <b>1.49</b>             | <b>nil</b>                              | <b>nil</b>                                          | <b>86</b> |
| Increase or decrease in 1933 on—         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 5 years' average, 1928–1932              |  |  |  |  | ...                               | −1.3        | +0.5                                               | −0.22                  | −0.23                   | −5.35                                   | —                                                   | +32       |
| Previous year                            |  |  |  |  | ...                               | −1.9        | +0.2                                               | −0.18                  | −0.12                   | −7.24                                   | −6.96                                               | +36       |
| <b>Mossley (Borough).—</b>               |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Population, 11,780.                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| Mean of 5 years, 1928–1932               |  |  |  |  | ...                               | 12.7        | 14.8                                               | 0.44                   | 1.89                    | 3.71                                    | —                                                   | 69        |
| Year—                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 1932                                     |  |  |  |  | ...                               | 12.7        | 15.8                                               | 0.75                   | 2.67                    | nil                                     | nil                                                 | 65        |
| <b>1933</b>                              |  |  |  |  | ...                               | <b>11.9</b> | <b>13.4</b>                                        | <b>0.59</b>            | <b>1.69</b>             | <b>nil</b>                              | <b>nil</b>                                          | <b>70</b> |
| Increase or decrease in 1933 on—         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |           |
| 5 years' average, 1928–1932              |  |  |  |  | ...                               | −0.8        | −1.4                                               | +0.15                  | −0.20                   | −3.71                                   | —                                                   | +1        |
| Previous year                            |  |  |  |  | ...                               | −0.8        | −2.4                                               | −0.16                  | −0.98                   | nil                                     | nil                                                 | +5        |

|                                                                                                                                                                                                                                                                                                                          |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |             |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-----------------------------------|-------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                          |  |  |  |  | Live Birth-rate                   | Death-rate  | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |
| <b>elton (Borough).—</b>                                                                                                                                                                                                                                                                                                 |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| Population, 37,710.                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>Mean of 5 years, 1928–1932</i>                                                                                                                                                                                                                                                                                        |  |  |  |  | ... 11.1                          | 12.9        | 0.52                                               | 1.51                   | 5.85                    | —                                       | 57                                                  |
| Year—                                                                                                                                                                                                                                                                                                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| 1932 ... ..                                                                                                                                                                                                                                                                                                              |  |  |  |  | 10.9                              | 12.8        | 0.54                                               | 1.38                   | 4.76                    | 4.56                                    | 54                                                  |
| <b>1933 ... ..</b>                                                                                                                                                                                                                                                                                                       |  |  |  |  | <b>10.4</b>                       | <b>14.2</b> | <b>0.45</b>                                        | <b>1.75</b>            | <b>10.15</b>            | <b>9.63</b>                             | <b>78</b>                                           |
| <i>Increase or decrease in 1933 on—</i>                                                                                                                                                                                                                                                                                  |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>5 years' average, 1928–1932</i>                                                                                                                                                                                                                                                                                       |  |  |  |  | ... −0.7                          | +1.3        | −0.07                                              | +0.24                  | +4.30                   | —                                       | +21                                                 |
| <i>Previous year ... ..</i>                                                                                                                                                                                                                                                                                              |  |  |  |  | ... −0.5                          | +1.4        | −0.09                                              | +0.37                  | +5.39                   | +5.07                                   | +24                                                 |
| <b>ewton-in-Makerfield.—</b>                                                                                                                                                                                                                                                                                             |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| Population, 20,340.                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>Mean of 5 years, 1928–1932</i>                                                                                                                                                                                                                                                                                        |  |  |  |  | ... 17.0                          | 11.2        | 0.82                                               | 1.06                   | 3.40                    | —                                       | 74                                                  |
| Year—                                                                                                                                                                                                                                                                                                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| 1932 ... ..                                                                                                                                                                                                                                                                                                              |  |  |  |  | 14.7                              | 10.8        | 0.49                                               | 1.24                   | 3.37                    | 3.20                                    | 81                                                  |
| <b>1933 ... ..</b>                                                                                                                                                                                                                                                                                                       |  |  |  |  | <b>15.1</b>                       | <b>12.8</b> | <b>0.63</b>                                        | <b>1.17</b>            | <b>6.49</b>             | <b>6.19</b>                             | <b>71</b>                                           |
| <i>Increase or decrease in 1933 on—</i>                                                                                                                                                                                                                                                                                  |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>5 years' average, 1928–1932</i>                                                                                                                                                                                                                                                                                       |  |  |  |  | ... −1.9                          | +1.6        | −0.19                                              | +0.11                  | +3.09                   | —                                       | −3                                                  |
| <i>Previous year ... ..</i>                                                                                                                                                                                                                                                                                              |  |  |  |  | ... +0.4                          | +2.0        | +0.14                                              | −0.07                  | +3.12                   | +2.99                                   | −10                                                 |
| <b>Norden.—</b>                                                                                                                                                                                                                                                                                                          |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>Mean of 5 years, 1928–1932</i>                                                                                                                                                                                                                                                                                        |  |  |  |  | ... 12.6                          | 13.8        | 0.49                                               | 1.27                   | 7.08                    | —                                       | 74                                                  |
| Year—                                                                                                                                                                                                                                                                                                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| 1932 ... ..                                                                                                                                                                                                                                                                                                              |  |  |  |  | 12.7                              | 13.7        | 0.45                                               | 1.59                   | nil                     | nil                                     | 53                                                  |
| <b>1933 ... ..</b>                                                                                                                                                                                                                                                                                                       |  |  |  |  | <b>15.5</b>                       | <b>16.1</b> | <b>0.29</b>                                        | <b>0.59</b>            | <b>nil</b>              | <b>nil</b>                              | <b>57</b>                                           |
| * On the 1st October, 1933, the Urban District of Norden was abolished.<br>The birth and death rates for 1933 are calculated per 1,000 of the population per annum on an estimated population supplied by the Registrar-General; the rates are based on the births and deaths for the period ended 30th September, 1933. |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <b>rmskirk.—</b>                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| Population, 17,410.                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>Mean of 5 years, 1928–1932</i>                                                                                                                                                                                                                                                                                        |  |  |  |  | ... 14.4                          | 12.5        | 0.58                                               | 1.68                   | 7.80                    | —                                       | 51                                                  |
| Year—                                                                                                                                                                                                                                                                                                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| 1932 ... ..                                                                                                                                                                                                                                                                                                              |  |  |  |  | 14.5                              | 11.1        | 0.75                                               | 1.74                   | 11.95                   | 11.40                                   | 67                                                  |
| <b>1933 ... ..</b>                                                                                                                                                                                                                                                                                                       |  |  |  |  | <b>12.5</b>                       | <b>13.4</b> | <b>0.80</b>                                        | <b>1.89</b>            | <b>9.17</b>             | <b>8.73</b>                             | <b>82</b>                                           |
| <i>Increase or decrease in 1933 on—</i>                                                                                                                                                                                                                                                                                  |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>5 years' average, 1928–1932</i>                                                                                                                                                                                                                                                                                       |  |  |  |  | ... −1.9                          | +0.9        | +0.22                                              | +0.21                  | +1.37                   | —                                       | +31                                                 |
| <i>Previous year ... ..</i>                                                                                                                                                                                                                                                                                              |  |  |  |  | ... −2.0                          | +2.3        | +0.05                                              | +0.15                  | −2.78                   | −2.67                                   | +15                                                 |
| <b>rrell.—</b>                                                                                                                                                                                                                                                                                                           |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| Population, 7,162.                                                                                                                                                                                                                                                                                                       |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>Mean of 5 years, 1928–1932</i>                                                                                                                                                                                                                                                                                        |  |  |  |  | ... 14.4                          | 11.8        | 0.28                                               | 1.26                   | 5.90                    | —                                       | 88                                                  |
| Year—                                                                                                                                                                                                                                                                                                                    |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| 1932 ... ..                                                                                                                                                                                                                                                                                                              |  |  |  |  | 16.0                              | 11.0        | 0.42                                               | 1.27                   | nil                     | nil                                     | 61                                                  |
| <b>1933 ... ..</b>                                                                                                                                                                                                                                                                                                       |  |  |  |  | <b>11.5</b>                       | <b>11.4</b> | <b>0.55</b>                                        | <b>0.97</b>            | <b>nil</b>              | <b>nil</b>                              | <b>84</b>                                           |
| <i>Increase or decrease in 1933 on—</i>                                                                                                                                                                                                                                                                                  |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                     |
| <i>5 years' average, 1928–1932</i>                                                                                                                                                                                                                                                                                       |  |  |  |  | ... −2.9                          | −0.4        | +0.27                                              | −0.29                  | −5.90                   | —                                       | −4                                                  |
| <i>Previous year ... ..</i>                                                                                                                                                                                                                                                                                              |  |  |  |  | ... −4.5                          | +0.4        | +0.13                                              | −0.30                  | nil                     | nil                                     | +23                                                 |



|                                         |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Birth |     |
|-----------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|----------------------------------------------------|-----|
|                                         |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                    |     |
| <b>Oswaldtwistle.—</b>                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 13,810.                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 12·4       | 13·4                                               | 0·58                   | 1·70                    | 6·46                                    | —                                                  | 72  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                                    |  |  |  |  | ...                               | 13·0       | 12·9                                               | 0·57                   | 1·92                    | nil                                     | nil                                                | 32  |
| 1933                                    |  |  |  |  | ...                               | 9·8        | 12·5                                               | 0·57                   | 1·23                    | nil                                     | nil                                                | 36  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | —2·6       | —0·9                                               | —0·01                  | —0·47                   | —6·46                                   | —                                                  | —36 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —3·2       | —0·4                                               | nil                    | —0·69                   | nil                                     | nil                                                | +4  |
| <b>Padiham.—</b>                        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 11,490.                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 13·1       | 13·5                                               | 0·53                   | 1·26                    | 9·12                                    | —                                                  | 75  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                                    |  |  |  |  | ...                               | 12·6       | 13·3                                               | 0·51                   | 1·20                    | 13·69                                   | 12·82                                              | 54  |
| 1933                                    |  |  |  |  | ...                               | 12·5       | 16·0                                               | 0·52                   | 1·82                    | 6·94                                    | 6·66                                               | 97  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | —0·6       | +2·5                                               | —0·01                  | +0·56                   | —2·18                                   | —                                                  | +22 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —0·1       | +2·7                                               | +0·01                  | +0·62                   | —6·75                                   | —6·16                                              | +43 |
| <b>Poulton-le-Fylde.—</b>               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 3,246.                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 12·5       | 14·6                                               | 0·37                   | 2·30                    | 18·22                                   | —                                                  | 84  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                                    |  |  |  |  | ...                               | 11·6       | 14·4                                               | 0·61                   | 2·45                    | 26·31                                   | 25·00                                              | 78  |
| 1933                                    |  |  |  |  | ...                               | 8·6        | 12·3                                               | 0·30                   | 2·77                    | nil                                     | nil                                                | 35  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | —3·9       | —2·3                                               | —0·07                  | +0·47                   | —18·22                                  | —                                                  | —49 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —3·0       | —2·1                                               | —0·31                  | +0·32                   | —26·31                                  | —25·00                                             | —43 |
| <b>Preesall.—</b>                       |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 2,103.                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 14·2       | 11·1                                               | 0·48                   | 2·52                    | nil                                     | —                                                  | 29  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                                    |  |  |  |  | ...                               | 9·4        | 11·3                                               | 0·47                   | 4·26                    | nil                                     | nil                                                | nil |
| 1933                                    |  |  |  |  | ...                               | 11·8       | 13·8                                               | nil                    | 2·85                    | nil                                     | nil                                                | nil |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | —2·4       | +2·7                                               | —0·48                  | +0·33                   | nil                                     | —                                                  | —29 |
| <i>Previous year</i>                    |  |  |  |  | ...                               | +2·4       | +2·5                                               | —0·47                  | —1·41                   | nil                                     | nil                                                | nil |
| <b>Prescot.—</b>                        |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| Population, 11,490.                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 17·0       | 12·1                                               | 0·64                   | 1·50                    | 3·56                                    | —                                                  | 55  |
| Year—                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| 1932                                    |  |  |  |  | ...                               | 17·9       | 9·9                                                | 0·27                   | 1·00                    | nil                                     | nil                                                | 61  |
| 1933                                    |  |  |  |  | ...                               | 14·2       | 11·5                                               | 0·87                   | 1·65                    | 6·09                                    | 5·84                                               | 60  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                    |     |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | —2·8       | —0·6                                               | +0·23                  | +0·15                   | +2·53                                   | —                                                  | +5  |
| <i>Previous year</i>                    |  |  |  |  | ...                               | —3·7       | +1·6                                               | +0·60                  | +0·65                   | +6·09                                   | +5·84                                              | —1  |

|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| estwich.—                                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 26,100.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 11·6       | 10·1                                               | 0·49                   | 1·23                    | 0·74                                    | —                                                   | 69  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 11·0       | 9·9                                                | 0·48                   | 1·16                    | nil                                     | nil                                                 | 65  |
| 1933                                                                 |  |  |  |  | ...                               | 10·7       | 9·6                                                | 0·53                   | 1·37                    | nil                                     | nil                                                 | 42  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −0·9       | −0·5                                               | +0·04                  | +0·14                   | −0·74                                   | —                                                   | −27 |
| Previous year                                                        |  |  |  |  | ...                               | −0·3       | −0·3                                               | +0·05                  | +0·21                   | nil                                     | nil                                                 | −23 |
| adcliffe.—                                                           |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 27,070.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 13·0       | 13·4                                               | 0·67                   | 1·56                    | 4·86                                    | —                                                   | 67  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 13·5       | 13·2                                               | 0·92                   | 1·48                    | 2·95                                    | 2·81                                                | 53  |
| 1933                                                                 |  |  |  |  | ...                               | 13·2       | 14·3                                               | 0·67                   | 1·46                    | 2·98                                    | 2·83                                                | 38  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | +0·2       | +0·9                                               | nil                    | −0·10                   | −1·88                                   | —                                                   | −29 |
| Previous year                                                        |  |  |  |  | ...                               | −0·3       | +1·1                                               | −0·25                  | −0·02                   | +0·03                                   | +0·02                                               | −15 |
| Birth and death rates for 1933 calculated on a population of 25,220. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| ainford.—                                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 3,586.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 15·5       | 9·7                                                | 0·48                   | 1·11                    | nil                                     | —                                                   | 49  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 16·6       | 7·7                                                | nil                    | 1·71                    | nil                                     | nil                                                 | 51  |
| 1933                                                                 |  |  |  |  | ...                               | 13·1       | 9·2                                                | 0·83                   | 1·67                    | 21·27                                   | 20·40                                               | 42  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −2·4       | −0·5                                               | +0·35                  | +0·56                   | +21·27                                  | —                                                   | −7  |
| Previous year                                                        |  |  |  |  | ...                               | −3·5       | +1·5                                               | +0·83                  | −0·04                   | +21·27                                  | +20·40                                              | −9  |
| amsbottom.—                                                          |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 15,362.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 12·3       | 13·3                                               | 0·63                   | 1·80                    | 5·63                                    | —                                                   | 71  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 9·7        | 13·4                                               | 0·53                   | 2·34                    | 6·84                                    | 6·21                                                | 82  |
| 1933                                                                 |  |  |  |  | ...                               | 11·7       | 13·3                                               | 0·66                   | 1·40                    | nil                                     | nil                                                 | 62  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −0·6       | nil                                                | +0·03                  | −0·40                   | −5·63                                   | —                                                   | −9  |
| Previous year                                                        |  |  |  |  | ...                               | +2·0       | −0·1                                               | +0·13                  | −0·94                   | −6·84                                   | −6·21                                               | −20 |
| Birth and death rates for 1933 calculated on a population of 14,930. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| awtenstall (Borough).—                                               |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 28,130.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 12·4       | 14·0                                               | 0·44                   | 1·59                    | 8·61                                    | —                                                   | 72  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 11·0       | 13·2                                               | 0·35                   | 1·57                    | 9·49                                    | 8·90                                                | 63  |
| 1933                                                                 |  |  |  |  | ...                               | 10·0       | 13·8                                               | 0·56                   | 1·70                    | 3·53                                    | 3·31                                                | 56  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −2·4       | −0·2                                               | +0·12                  | +0·11                   | −5·08                                   | —                                                   | −16 |
| Previous year                                                        |  |  |  |  | ...                               | −1·0       | +0·6                                               | +0·21                  | +0·13                   | −5·96                                   | −5·59                                               | −7  |



| PER 1,000 OF ESTIMATED POPULATION                                    |  |  |  |  |                 |            |                                                    |                        |                       | Maternal Mortality Rate                 |        | Rate of Deaths under One Year per 1,000 Live Births |
|----------------------------------------------------------------------|--|--|--|--|-----------------|------------|----------------------------------------------------|------------------------|-----------------------|-----------------------------------------|--------|-----------------------------------------------------|
|                                                                      |  |  |  |  | Live Birth-rate | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births | Per 1,000 Total (Live and Still) Births |        |                                                     |
| <b>Rishton.—</b>                                                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 6,396.                                                   |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...             | 11.1       | 12.6                                               | 0.82                   | 1.70                  | 10.72                                   | —      | 89                                                  |
| Year—                                                                |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                                                 |  |  |  |  | ...             | 11.3       | 11.0                                               | 0.76                   | 2.14                  | nil                                     | nil    | 54                                                  |
| 1933                                                                 |  |  |  |  | ...             | 10.9       | 12.5                                               | 0.46                   | 0.93                  | nil                                     | nil    | 28                                                  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...             | -0.2       | -0.1                                               | -0.36                  | -0.77                 | -10.72                                  | —      | -61                                                 |
| Previous year                                                        |  |  |  |  | ...             | -0.4       | +1.5                                               | -0.30                  | -1.21                 | nil                                     | nil    | -26                                                 |
| <b>Royton.—</b>                                                      |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 16,670.                                                  |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...             | 12.9       | 14.5                                               | 0.80                   | 1.36                  | 5.85                                    | —      | 112                                                 |
| Year—                                                                |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                                                 |  |  |  |  | ...             | 15.5       | 13.9                                               | 0.71                   | 1.43                  | nil                                     | nil    | 137                                                 |
| 1933                                                                 |  |  |  |  | ...             | 13.1       | 15.2                                               | 0.53                   | 1.43                  | 13.63                                   | 12.93  | 77                                                  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...             | +0.2       | +0.7                                               | -0.27                  | +0.07                 | +7.78                                   | —      | -35                                                 |
| Previous year                                                        |  |  |  |  | ...             | -2.4       | +1.3                                               | -0.18                  | nil                   | +13.63                                  | +12.93 | -60                                                 |
| <b>Skelmersdale.—</b>                                                |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 6,109.                                                   |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...             | 15.1       | 12.0                                               | 0.45                   | 1.20                  | 4.00                                    | —      | 69                                                  |
| Year—                                                                |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                                                 |  |  |  |  | ...             | 15.0       | 12.3                                               | 0.32                   | 1.62                  | nil                                     | nil    | 107                                                 |
| 1933                                                                 |  |  |  |  | ...             | 17.5       | 13.5                                               | 0.65                   | 1.63                  | nil                                     | nil    | 37                                                  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...             | +2.4       | +1.5                                               | +0.20                  | +0.43                 | -4.00                                   | —      | -32                                                 |
| Previous year                                                        |  |  |  |  | ...             | +2.5       | +1.2                                               | +0.33                  | +0.01                 | nil                                     | nil    | -70                                                 |
| <b>Standish-with-Langtree.—</b>                                      |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 7,461.                                                   |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...             | 13.6       | 11.8                                               | 0.50                   | 0.94                  | 1.88                                    | —      | 86                                                  |
| Year—                                                                |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                                                 |  |  |  |  | ...             | 13.7       | 11.6                                               | 0.68                   | 1.22                  | nil                                     | nil    | 79                                                  |
| 1933                                                                 |  |  |  |  | ...             | 12.7       | 9.7                                                | nil                    | 0.67                  | 31.57                                   | 30.00  | 73                                                  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...             | -0.9       | -2.1                                               | -0.50                  | -0.27                 | +29.69                                  | —      | -13                                                 |
| Previous year                                                        |  |  |  |  | ...             | -1.0       | -1.9                                               | -0.68                  | -0.55                 | +31.57                                  | +30.00 | -6                                                  |
| <b>Stretford (Borough).—</b>                                         |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 57,230.                                                  |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...             | 14.1       | 11.4                                               | 0.67                   | 1.46                  | 4.39                                    | —      | 58                                                  |
| Year—                                                                |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                                                 |  |  |  |  | ...             | 13.0       | 11.0                                               | 0.53                   | 1.38                  | 4.08                                    | 3.84   | 59                                                  |
| 1933                                                                 |  |  |  |  | ...             | 12.3       | 11.6                                               | 0.82                   | 1.36                  | 7.07                                    | 6.72   | 46                                                  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...             | -1.8       | +0.2                                               | +0.15                  | -0.10                 | +2.68                                   | —      | -12                                                 |
| Previous year                                                        |  |  |  |  | ...             | -0.7       | +0.6                                               | +0.29                  | -0.02                 | +2.99                                   | +2.88  | -13                                                 |
| Birth and death rates for 1933 calculated on a population of 57,220. |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |

|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| Winton and Pendlebury.—                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 38,300.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 13·7       | 11·6                                               | 0·53                   | 1·47                    | 4·75                                    | —                                                   | 67  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 13·8       | 11·1                                               | 0·53                   | 1·65                    | nil                                     | nil                                                 | 42  |
| 1933                                                                 |  |  |  |  | ...                               | 13·8       | 11·3                                               | 0·42                   | 1·19                    | 5·74                                    | 5·46                                                | 53  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | +0·1       | −0·3                                               | −0·11                  | −0·28                   | +0·99                                   | —                                                   | −14 |
| Previous year                                                        |  |  |  |  | ...                               | nil        | +0·2                                               | −0·11                  | −0·46                   | +5·74                                   | +5·46                                               | +11 |
| Birth and death rates for 1933 calculated on a population of 37,560. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Wornton Cleveleys.—                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 10,400.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 14·2       | 12·5                                               | 0·72                   | 1·63                    | 7·06                                    | —                                                   | 52  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 9·6        | 13·1                                               | 1·09                   | 2·19                    | nil                                     | nil                                                 | 51  |
| 1933                                                                 |  |  |  |  | ...                               | 11·0       | 12·8                                               | 0·67                   | 1·53                    | nil                                     | nil                                                 | 52  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −3·2       | +0·3                                               | −0·05                  | −0·10                   | −7·06                                   | —                                                   | nil |
| Previous year                                                        |  |  |  |  | ...                               | +1·4       | −0·3                                               | −0·42                  | −0·66                   | nil                                     | nil                                                 | +1  |
| Wottingham.—                                                         |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 6,275.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 11·5       | 12·1                                               | 0·21                   | 1·15                    | 2·98                                    | —                                                   | 53  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 10·4       | 14·3                                               | 0·31                   | 1·09                    | nil                                     | nil                                                 | 104 |
| 1933                                                                 |  |  |  |  | ...                               | 13·3       | 13·3                                               | 0·31                   | 1·11                    | 11·90                                   | 11·36                                               | 23  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | +1·8       | +1·2                                               | +0·10                  | −0·04                   | +8·92                                   | —                                                   | −30 |
| Previous year                                                        |  |  |  |  | ...                               | +2·9       | −1·0                                               | nil                    | +0·02                   | +11·90                                  | +11·36                                              | −81 |
| Wrawden.—                                                            |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 2,508.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 10·2       | 12·4                                               | 0·30                   | 0·76                    | 7·40                                    | —                                                   | 79  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 10·6       | 15·3                                               | nil                    | 1·17                    | 37·03                                   | 34·48                                               | 148 |
| 1933                                                                 |  |  |  |  | ...                               | 9·1        | 13·1                                               | 0·39                   | 1·19                    | nil                                     | nil                                                 | 86  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | −1·1       | +0·7                                               | +0·09                  | +0·43                   | −7·40                                   | —                                                   | +7  |
| Previous year                                                        |  |  |  |  | ...                               | −1·5       | −2·2                                               | +0·39                  | +0·02                   | −37·03                                  | −34·48                                              | −62 |
| Wurton.—                                                             |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 11,580.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932                                           |  |  |  |  | ...                               | 10·6       | 13·2                                               | 0·49                   | 1·84                    | 3·20                                    | —                                                   | 66  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 9·7        | 12·1                                               | 0·42                   | 1·70                    | nil                                     | nil                                                 | 43  |
| 1933                                                                 |  |  |  |  | ...                               | 11·5       | 15·2                                               | 0·69                   | 2·15                    | nil                                     | nil                                                 | 74  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932                                          |  |  |  |  | ...                               | +0·9       | +2·0                                               | +0·20                  | +0·31                   | −3·20                                   | —                                                   | +8  |
| Previous year                                                        |  |  |  |  | ...                               | +1·8       | +3·1                                               | +0·27                  | +0·45                   | nil                                     | nil                                                 | +31 |



|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| <b>Tyldesley.—</b>                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 19,150.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 16·2       | 12·0                                               | 0·52                   | 1·37                    | 3·17                                    | —                                                   | 83  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 15·3       | 11·1                                               | 0·80                   | 1·34                    | nil                                     | nil                                                 | 96  |
| 1933                                                                 |  |  |  |  | ...                               | 16·2       | 12·3                                               | 0·69                   | 1·32                    | 3·89                                    | 3·74                                                | 62  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | nil        | +0·3                                               | +0·17                  | −0·05                   | +0·72                                   | —                                                   | −21 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | +0·9       | +1·2                                               | −0·11                  | −0·02                   | +3·89                                   | +3·74                                               | −34 |
| Birth and death rates for 1933 calculated on a population of 15,840. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Ulverston.—</b>                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 9,323.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 13·8       | 15·2                                               | 0·54                   | 2·07                    | 3·33                                    | —                                                   | 62  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12·5       | 14·9                                               | 0·43                   | 2·49                    | 8·62                                    | 8·00                                                | 34  |
| 1933                                                                 |  |  |  |  | ...                               | 12·6       | 12·4                                               | 0·75                   | 2·14                    | nil                                     | nil                                                 | 42  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −1·2       | −2·8                                               | +0·21                  | +0·07                   | −3·33                                   | —                                                   | −20 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | +0·1       | −2·5                                               | +0·32                  | −0·35                   | −8·62                                   | −8·00                                               | +8  |
| <b>Upholland.—</b>                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 5,711.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 16·4       | 10·9                                               | 0·48                   | 1·43                    | nil                                     | —                                                   | 44  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 16·1       | 7·9                                                | 0·88                   | 0·70                    | nil                                     | nil                                                 | 32  |
| 1933                                                                 |  |  |  |  | ...                               | 13·3       | 11·3                                               | nil                    | 1·75                    | nil                                     | nil                                                 | 65  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −3·1       | +0·4                                               | −0·48                  | +0·32                   | nil                                     | —                                                   | +21 |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | −2·8       | +3·4                                               | −0·88                  | +1·05                   | nil                                     | nil                                                 | +33 |
| <b>Urmston.—</b>                                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 25,283.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 13·5       | 12·4                                               | 0·60                   | 1·92                    | 4·85                                    | —                                                   | 49  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 11·9       | 10·0                                               | 0·31                   | 1·49                    | nil                                     | nil                                                 | 71  |
| 1933                                                                 |  |  |  |  | ...                               | 14·5       | 10·2                                               | 0·41                   | 1·63                    | 3·21                                    | 3·06                                                | 41  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | +1·0       | −2·2                                               | −0·19                  | −0·29                   | −1·64                                   | —                                                   | −8  |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | +2·6       | +0·2                                               | +0·10                  | +0·14                   | +3·21                                   | +3·06                                               | −30 |
| Birth and death rates for 1933 calculated on a population of 21,440. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <b>Walton-le-Dale.—</b>                                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 12,970.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>Mean of 5 years, 1928–1932</i>                                    |  |  |  |  | ...                               | 13·8       | 12·3                                               | 0·65                   | 1·63                    | 6·82                                    | —                                                   | 63  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 12·5       | 11·0                                               | 0·30                   | 1·54                    | 6·13                                    | 5·68                                                | 55  |
| 1933                                                                 |  |  |  |  | ...                               | 11·2       | 12·2                                               | 0·30                   | 1·23                    | nil                                     | nil                                                 | 61  |
| <i>Increase or decrease in 1933 on—</i>                              |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| <i>5 years' average, 1928–1932</i>                                   |  |  |  |  | ...                               | −2·6       | −0·1                                               | −0·35                  | −0·40                   | −6·82                                   | —                                                   | −2  |
| <i>Previous year</i>                                                 |  |  |  |  | ...                               | −1·3       | +1·2                                               | nil                    | −0·31                   | −6·13                                   | −5·68                                               | +6  |

|                                                                      |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                                                      |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| <b>Yardle.—</b>                                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 4,453.                                                   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 11.9       | 13.2                                               | 0.34                   | 1.06                    | 3.33                                    | —                                                   | 64  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 11.6       | 14.8                                               | 0.22                   | 1.57                    | nil                                     | nil                                                 | 38  |
| 1933                                                                 |  |  |  |  | ...                               | 11.4       | 14.3                                               | 0.22                   | 1.34                    | nil                                     | nil                                                 | 78  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | -0.5       | +1.1                                               | -0.12                  | +0.28                   | -3.33                                   | —                                                   | +14 |
| Previous year                                                        |  |  |  |  | ...                               | -0.2       | -0.5                                               | nil                    | -0.23                   | nil                                     | nil                                                 | +40 |
| <b>Waterloo-with-Seaforth.—</b>                                      |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 30,550.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 16.0       | 12.5                                               | 0.90                   | 1.55                    | 3.49                                    | —                                                   | 68  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 15.6       | 12.4                                               | 0.81                   | 1.81                    | 4.15                                    | 3.89                                                | 79  |
| 1933                                                                 |  |  |  |  | ...                               | 15.8       | 13.4                                               | 1.04                   | 1.37                    | 2.07                                    | 1.99                                                | 80  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | -0.2       | +0.9                                               | +0.14                  | -0.18                   | -1.42                                   | —                                                   | +12 |
| Previous year                                                        |  |  |  |  | ...                               | +0.2       | +1.0                                               | +0.23                  | -0.44                   | -2.08                                   | -1.90                                               | +1  |
| <b>Westhoughton.—</b>                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 15,820.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 13.5       | 11.7                                               | 0.53                   | 0.87                    | 3.47                                    | —                                                   | 82  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 13.8       | 11.4                                               | 0.50                   | 1.12                    | 4.52                                    | 4.34                                                | 85  |
| 1933                                                                 |  |  |  |  | ...                               | 14.2       | 11.8                                               | 0.37                   | 0.94                    | 8.88                                    | 8.36                                                | 97  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | +0.7       | +0.1                                               | -0.16                  | +0.07                   | +5.41                                   | —                                                   | +15 |
| Previous year                                                        |  |  |  |  | ...                               | +0.4       | +0.4                                               | -0.13                  | -0.18                   | +4.36                                   | +4.02                                               | +12 |
| <b>Whitefield.—</b>                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Population, 10,321.                                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928-1932                                           |  |  |  |  | ...                               | 15.2       | 13.2                                               | 0.68                   | 1.60                    | 7.02                                    | —                                                   | 61  |
| Year—                                                                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                                                 |  |  |  |  | ...                               | 15.9       | 13.5                                               | 0.40                   | 1.93                    | 12.82                                   | 11.90                                               | 70  |
| 1933                                                                 |  |  |  |  | ...                               | 12.1       | 10.5                                               | 0.09                   | 1.27                    | nil                                     | nil                                                 | 40  |
| Increase or decrease in 1933 on—                                     |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928-1932                                          |  |  |  |  | ...                               | -3.1       | -2.7                                               | -0.59                  | -0.33                   | -7.02                                   | —                                                   | -21 |
| Previous year                                                        |  |  |  |  | ...                               | -3.8       | -3.0                                               | -0.31                  | -0.66                   | -12.82                                  | -11.90                                              | -30 |
| Birth and death rates for 1933 calculated on a population of 10,230. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |

| Whitworth.—                      |  |  |  |  |     |      |      |       |       |       |       |       |       |       |     |
|----------------------------------|--|--|--|--|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-----|
| Population, 8,206.               |  |  |  |  |     |      |      |       |       |       |       |       |       |       |     |
| Mean of 5 years, 1928–1932       |  |  |  |  | ... | 14.6 | 16.0 | 0.77  | 1.81  | 3.23  | —     | 106   |       |       |     |
| Year—                            |  |  |  |  |     |      |      |       |       |       |       |       |       |       |     |
| 1932                             |  |  |  |  | ... | ...  | ...  | ...   | 15.0  | 15.2  | 0.36  | 2.05  | 8.06  | 7.57  | 80  |
| 1933                             |  |  |  |  | ... | ...  | ...  | ...   | 14.2  | 16.2  | 0.73  | 1.58  | nil   | nil   | 111 |
| Increase or decrease in 1933 on— |  |  |  |  |     |      |      |       |       |       |       |       |       |       |     |
| 5 years' average, 1928–1932      |  |  |  |  | ... | −0.4 | +0.2 | −0.04 | −0.23 | −3.23 | —     | +5    |       |       |     |
| Previous year                    |  |  |  |  | ... | ...  | ...  | ...   | −0.8  | +1.0  | +0.37 | −0.47 | −8.06 | −7.57 | +31 |



| PER 1,000 OF ESTIMATED POPULATION.      |  |  |  |  |                 |            |                                                    |                        |                       | Maternal Mortality Rate                 |        | Rate of Deaths under One Year per 1,000 Live Births |
|-----------------------------------------|--|--|--|--|-----------------|------------|----------------------------------------------------|------------------------|-----------------------|-----------------------------------------|--------|-----------------------------------------------------|
|                                         |  |  |  |  | Live Birth-rate | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births | Per 1,000 Total (Live and Still) Births |        |                                                     |
| <b>Widnes (Borough).—</b>               |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 41,380.                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...             | 20.8       | 12.1                                               | 0.92                   | 1.14                  | 3.77                                    | —      | 74                                                  |
| Year—                                   |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                    |  |  |  |  | ...             | 20.1       | 11.5                                               | 1.02                   | 1.33                  | 6.04                                    | 5.80   | 74                                                  |
| 1933                                    |  |  |  |  | ...             | 18.8       | 11.6                                               | 0.94                   | 1.03                  | nil                                     | nil    | 62                                                  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...             | -2.0       | -0.5                                               | +0.02                  | -0.11                 | -3.77                                   | —      | -12                                                 |
| <i>Previous year</i>                    |  |  |  |  | ...             | -1.3       | +0.1                                               | -0.08                  | -0.30                 | -6.04                                   | -5.80  | -12                                                 |
| <b>Withnell.—</b>                       |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 2,903.                      |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...             | 11.8       | 12.0                                               | 0.63                   | 1.37                  | 8.00                                    | —      | 49                                                  |
| Year—                                   |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                    |  |  |  |  | ...             | 11.9       | 12.6                                               | 1.02                   | 0.68                  | nil                                     | nil    | 28                                                  |
| 1933                                    |  |  |  |  | ...             | 11.7       | 12.0                                               | nil                    | 0.68                  | 29.41                                   | 27.02  | 29                                                  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...             | -0.1       | nil                                                | -0.63                  | -0.69                 | +21.41                                  | —      | -20                                                 |
| <i>Previous year</i>                    |  |  |  |  | ...             | -0.2       | -0.6                                               | -1.02                  | nil                   | +29.41                                  | +27.02 | +1                                                  |
| <b>Worsley.—</b>                        |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| Population, 22,427.                     |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| <i>Mean of 5 years, 1928-1932</i>       |  |  |  |  | ...             | 12.0       | 12.4                                               | 0.43                   | 1.42                  | 11.65                                   | —      | 72                                                  |
| Year—                                   |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| 1932                                    |  |  |  |  | ...             | 11.6       | 12.1                                               | 0.53                   | 1.25                  | 3.86                                    | 3.71   | 65                                                  |
| 1933                                    |  |  |  |  | ...             | 11.7       | 13.5                                               | 0.19                   | 1.79                  | nil                                     | nil    | 58                                                  |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                 |            |                                                    |                        |                       |                                         |        |                                                     |
| <i>5 years' average, 1928-1932</i>      |  |  |  |  | ...             | -0.3       | +1.1                                               | -0.24                  | +0.37                 | -11.65                                  | —      | -14                                                 |
| <i>Previous year</i>                    |  |  |  |  | ...             | +0.1       | +1.4                                               | -0.34                  | +0.54                 | -3.86                                   | -3.71  | -7                                                  |

Birth and death rates for 1933 calculated on a population of 20,600.

## RURAL DISTRICTS.

|                            |     |     |     |     | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |    |
|----------------------------|-----|-----|-----|-----|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|----|
|                            |     |     |     |     | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |    |
| * Barton-upon-Irwell.—     |     |     |     |     |                                   |            |                                                    |                        |                         |                                         |                                                     |    |
| Mean of 5 years, 1928–1932 |     |     |     |     | ...                               | 15.7       | 10.8                                               | 0.52                   | 1.40                    | 4.45                                    | —                                                   | 64 |
| Year—                      |     |     |     |     |                                   |            |                                                    |                        |                         |                                         |                                                     |    |
| 1932                       | ... | ... | ... | ... | 15.7                              | 10.6       | 0.53                                               | 1.42                   | 3.75                    | 3.55                                    | 56                                                  |    |
| 1933                       | ... | ... | ... | ... | 15.5                              | 12.5       | 0.42                                               | 0.63                   | nil                     | nil                                     | 82                                                  |    |

\* On the 1st April, 1933, the Rural District of Barton-upon-Irwell was abolished.  
The birth and death rates for 1933 are calculated per 1,000 of the population per annum on an estimated population supplied by the Registrar-General; the rates are based on the births and deaths in the first quarter only.

Blackburn.—

|                                  |     |     |     |     |      |      |       |       |       |     |     |
|----------------------------------|-----|-----|-----|-----|------|------|-------|-------|-------|-----|-----|
| Population, 11,520.              |     |     |     |     |      |      |       |       |       |     |     |
| Mean of 5 years, 1928–1932       |     |     |     | ... | 10.8 | 10.1 | 0.26  | 0.98  | 4.99  | —   | 51  |
| Year—                            |     |     |     |     |      |      |       |       |       |     |     |
| 1932                             | ... | ... | ... | ... | 11.5 | 12.1 | 0.17  | 1.67  | nil   | nil | 76  |
| 1933                             | ... | ... | ... | ... | 11.4 | 11.5 | 0.52  | 2.17  | nil   | nil | 15  |
| Increase or decrease in 1933 on— |     |     |     |     |      |      |       |       |       |     |     |
| 5 years' average, 1928–1932      |     |     |     | ... | +0.6 | +1.4 | +0.26 | +1.19 | —4.99 | —   | —36 |
| Previous year                    |     |     |     | ... | —0.1 | —0.6 | +0.35 | +0.50 | nil   | nil | —61 |

|                                         |     |     |     |     |      |      |       |       |       |       |     |
|-----------------------------------------|-----|-----|-----|-----|------|------|-------|-------|-------|-------|-----|
| <b>Blackley.—</b>                       |     |     |     |     |      |      |       |       |       |       |     |
| Population, 17,660.                     |     |     |     |     |      |      |       |       |       |       |     |
| <i>Mean of 5 years, 1928–1932</i>       |     |     |     | ... | 11.8 | 13.0 | 0.53  | 1.17  | 1.79  | —     | 67  |
| <i>Year—</i>                            |     |     |     |     |      |      |       |       |       |       |     |
| 1932                                    | ... | ... | ... | ... | 12.0 | 11.9 | 0.56  | 0.90  | nil   | nil   | 56  |
| 1933                                    | ... | ... | ... | ... | 13.8 | 12.9 | 0.50  | 1.13  | 4.09  | 3.87  | 45  |
| <i>Increase or decrease in 1933 on—</i> |     |     |     |     |      |      |       |       |       |       |     |
| <i>5 years' average, 1928–1932</i>      |     |     |     | ... | +2.0 | —0.1 | —0.03 | —0.04 | +2.30 | —     | —22 |
| <i>Previous year</i>                    |     |     |     | ... | +1.8 | +1.0 | —0.06 | +0.23 | +4.09 | +3.87 | —11 |

|                            |     |     |     |     |      |      |      |      |       |       |     |
|----------------------------|-----|-----|-----|-----|------|------|------|------|-------|-------|-----|
| Bury.—                     |     |     |     |     |      |      |      |      |       |       |     |
| Mean of 5 years, 1928–1932 |     |     |     | ... | 11.8 | 12.8 | 0.45 | 1.38 | 10.67 | —     | 70  |
| Year—                      |     |     |     |     |      |      |      |      |       |       |     |
| 1932                       | ... | ... | ... | ... | 9.3  | 14.7 | 0.57 | 1.48 | 36.58 | 34.88 | 85  |
| 1933                       | ... | ... | ... | ... | 13.0 | 15.9 | 0.22 | 0.66 | 16.94 | 15.87 | 152 |

† The Rural District of Bury was abolished, part 1st April and part 1st October, 1933.  
The birth and death rates for 1933 are calculated per 1,000 of the population per annum on an estimated population supplied by the Registrar-General; the rates are based on the births and deaths prior to the district being abolished.

|                                  |     |     |      |      |       |       |       |       |       |       |    |
|----------------------------------|-----|-----|------|------|-------|-------|-------|-------|-------|-------|----|
| Chorley.—                        |     |     |      |      |       |       |       |       |       |       |    |
| Population, 22,240.              |     |     |      |      |       |       |       |       |       |       |    |
| Mean of 5 years, 1928–1932       |     | ... | 14.3 | 11.4 | 0.40  | 1.28  | 5.10  | —     | 68    |       |    |
| Year—                            |     |     |      |      |       |       |       |       |       |       |    |
| 1932                             | ... | ... | ...  | ...  | 13.6  | 11.1  | 0.27  | 1.26  | 3.30  | 3.02  | 75 |
| 1933                             | ... | ... | ...  | ...  | 12.5  | 13.0  | 0.13  | 1.79  | 10.79 | 10.10 | 82 |
| Increase or decrease in 1933 on— |     |     |      |      |       |       |       |       |       |       |    |
| 5 years' average, 1928–1932      |     | ... | —1.8 | +1.6 | —0.27 | +0.51 | +5.69 | —     | +14   |       |    |
| Previous year                    |     | ... | ...  | ...  | —1.1  | +1.9  | —0.14 | +0.53 | +7.49 | +7.08 | +7 |



|                                         |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                                |                              | Maternal Mortality Rate     |                                                     | Rate o<br>Deaths<br>under<br>One Year<br>per 1,00<br>Live Birt |
|-----------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------------------|------------------------------|-----------------------------|-----------------------------------------------------|----------------------------------------------------------------|
|                                         |  |  |  |  | Live<br>Birth-rate                | Death-rate | Death-rate<br>from<br>Tuberculosis of<br>Respiratory<br>System | Death-rate<br>from<br>Cancer | Per 1,000<br>Live<br>Births | Per 1,000<br>Total<br>(Live and<br>Still)<br>Births |                                                                |
| <b>Clitheroe.—</b>                      |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| Population, 8,805.                      |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ... 9.2                           | 8.5        | 0.28                                                           | 1.00                         | 9.28                        | —                                                   | 55                                                             |
| Year—                                   |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| 1932 ... ..                             |  |  |  |  | 8.3                               | 7.5        | nil                                                            | 0.90                         | nil                         | nil                                                 | 13                                                             |
| 1933 ... ..                             |  |  |  |  | 8.8                               | 9.0        | 0.34                                                           | 1.24                         | 12.81                       | 12.65                                               | 38                                                             |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ... −0.4                          | +0.5       | +0.06                                                          | +0.24                        | +3.53                       | —                                                   | −17                                                            |
| <i>Previous year</i> ... ..             |  |  |  |  | +0.5                              | +1.5       | +0.34                                                          | +0.34                        | +12.81                      | +12.65                                              | +25                                                            |
| <b>Fylde.—</b>                          |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| Population. 18,160.                     |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ... 14.9                          | 11.2       | 0.34                                                           | 1.12                         | 7.46                        | —                                                   | 64                                                             |
| Year—                                   |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| 1932 ... ..                             |  |  |  |  | 14.9                              | 12.0       | 0.47                                                           | 1.06                         | 7.93                        | 7.51                                                | 91                                                             |
| 1933 ... ..                             |  |  |  |  | 12.7                              | 12.7       | 0.44                                                           | 1.04                         | 4.31                        | 4.01                                                | 81                                                             |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ... −2.2                          | +1.5       | +0.10                                                          | −0.08                        | −3.15                       | —                                                   | +17                                                            |
| <i>Previous year</i> ... ..             |  |  |  |  | −2.2                              | +0.7       | −0.03                                                          | −0.02                        | −3.62                       | −3.50                                               | −10                                                            |
| <b>Garstang.—</b>                       |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| Population, 11,640.                     |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ... 16.1                          | 11.3       | 0.25                                                           | 1.03                         | 6.04                        | —                                                   | 52                                                             |
| Year—                                   |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| 1932 ... ..                             |  |  |  |  | 15.1                              | 11.4       | 0.25                                                           | 0.94                         | 5.68                        | 5.52                                                | 62                                                             |
| 1933 ... ..                             |  |  |  |  | 11.9                              | 12.1       | 0.17                                                           | 1.54                         | 14.38                       | 13.79                                               | 57                                                             |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ... −4.2                          | +0.8       | −0.08                                                          | +0.51                        | +8.34                       | —                                                   | +5                                                             |
| <i>Previous year</i> ... ..             |  |  |  |  | −3.2                              | +0.7       | −0.08                                                          | +0.60                        | +8.70                       | +8.27                                               | −5                                                             |
| <b>Lancaster.—</b>                      |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| Population, 9,564.                      |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ... 14.3                          | 12.6       | 0.37                                                           | 1.56                         | 5.88                        | —                                                   | 59                                                             |
| Year—                                   |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| 1932 ... ..                             |  |  |  |  | 11.8                              | 13.0       | 0.31                                                           | 2.63                         | nil                         | nil                                                 | 79                                                             |
| 1933 ... ..                             |  |  |  |  | 14.4                              | 14.5       | 0.41                                                           | 1.67                         | 7.24                        | 6.99                                                | 57                                                             |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ... +0.1                          | +1.9       | +0.04                                                          | +0.11                        | +1.36                       | —                                                   | −2                                                             |
| <i>Previous year</i> ... ..             |  |  |  |  | +2.6                              | +1.5       | +0.10                                                          | −0.96                        | +7.24                       | +6.99                                               | −22                                                            |
| <b>*Leigh.—</b>                         |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ... 14.5                          | 11.2       | 0.54                                                           | 1.07                         | 6.02                        | —                                                   | 89                                                             |
| Year—                                   |  |  |  |  |                                   |            |                                                                |                              |                             |                                                     |                                                                |
| 1932 ... ..                             |  |  |  |  | 15.1                              | 10.9       | 0.35                                                           | 1.32                         | 5.81                        | 5.68                                                | 98                                                             |
| 1933 ... ..                             |  |  |  |  | 12.1                              | 9.9        | 0.11                                                           | 0.47                         | nil                         | nil                                                 | 58                                                             |

\* On the 1st October, 1933, the Rural District of Leigh was abolished.

The birth and death rates for 1933 are calculated per 1,000 of the population per annum on an estimated population supplied by the Registrar-General; the rates are based on the births and deaths for the period ended 30th September, 1933.





|                                         |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |             |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Birth |           |
|-----------------------------------------|--|--|--|--|-----------------------------------|-------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|----------------------------------------------------|-----------|
|                                         |  |  |  |  | Live Birth-rate                   | Death-rate  | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                    |           |
|                                         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <b>West Lancashire.—</b>                |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| Population, 26,190.                     |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 14·1        | 11·6                                               | 0·43                   | 1·51                    | 6·10                                    | —                                                  | 60        |
| Year—                                   |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| 1932                                    |  |  |  |  | ...                               | 13·2        | 9·8                                                | 0·48                   | 1·21                    | nil                                     | nil                                                | 61        |
| <b>1933</b>                             |  |  |  |  | ...                               | <b>12·0</b> | <b>11·9</b>                                        | <b>0·38</b>            | <b>1·18</b>             | <b>3·17</b>                             | <b>2·98</b>                                        | <b>88</b> |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | –2·1        | +0·3                                               | –0·05                  | –0·33                   | –2·93                                   | —                                                  | +28       |
| <i>Previous year</i>                    |  |  |  |  | ...                               | –1·2        | +2·1                                               | –0·10                  | –0·03                   | +3·17                                   | +2·98                                              | +27       |
|                                         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <b>Whiston.—</b>                        |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| Population, 21,470.                     |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 14·6        | 9·5                                                | 0·37                   | 1·37                    | 4·92                                    | —                                                  | 55        |
| Year—                                   |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| 1932                                    |  |  |  |  | ...                               | 14·3        | 10·0                                               | 0·23                   | 1·39                    | 6·49                                    | 6·19                                               | 51        |
| <b>1933</b>                             |  |  |  |  | ...                               | <b>12·2</b> | <b>10·8</b>                                        | <b>0·51</b>            | <b>1·30</b>             | <b>3·78</b>                             | <b>3·57</b>                                        | <b>49</b> |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | –2·4        | +1·3                                               | +0·14                  | –0·07                   | –1·14                                   | —                                                  | –6        |
| <i>Previous year</i>                    |  |  |  |  | ...                               | –2·1        | +0·8                                               | +0·28                  | –0·09                   | –2·71                                   | –2·62                                              | –2        |
|                                         |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <b>Wigan.—</b>                          |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| Population, 6,469.                      |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <i>Mean of 5 years, 1928–1932</i>       |  |  |  |  | ...                               | 14·1        | 13·0                                               | 0·59                   | 1·35                    | 2·46                                    | —                                                  | 61        |
| Year—                                   |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| 1932                                    |  |  |  |  | ...                               | 16·3        | 12·3                                               | 0·79                   | 1·74                    | nil                                     | nil                                                | 67        |
| <b>1933</b>                             |  |  |  |  | ...                               | <b>14·2</b> | <b>12·8</b>                                        | <b>0·61</b>            | <b>1·54</b>             | <b>nil</b>                              | <b>nil</b>                                         | <b>76</b> |
| <i>Increase or decrease in 1933 on—</i> |  |  |  |  |                                   |             |                                                    |                        |                         |                                         |                                                    |           |
| <i>5 years' average, 1928–1932</i>      |  |  |  |  | ...                               | +0·1        | –0·2                                               | +0·02                  | +0·19                   | –2·46                                   | —                                                  | +15       |
| <i>Previous year</i>                    |  |  |  |  | ...                               | –2·1        | +0·5                                               | –0·18                  | –0·20                   | nil                                     | nil                                                | +9        |

## ADMINISTRATIVE COUNTY.

For Stillbirth rate and number of Legitimate and Illegitimate Births see Table 2, pages 18 to 25.

\* For populations used for the calculation of birth and death rates, see footnote to Table 2, page 25.

|                                        |  |  |  |  | PER 1,000 OF ESTIMATED POPULATION |            |                                                    |                        | Maternal Mortality Rate |                                         | Rate of Deaths under One Year per 1,000 Live Births |     |
|----------------------------------------|--|--|--|--|-----------------------------------|------------|----------------------------------------------------|------------------------|-------------------------|-----------------------------------------|-----------------------------------------------------|-----|
|                                        |  |  |  |  | Live Birth-rate                   | Death-rate | Death-rate from Tuberculosis of Respiratory System | Death-rate from Cancer | Per 1,000 Live Births   | Per 1,000 Total (Live and Still) Births |                                                     |     |
| Aggregate of County Urban Districts.—  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| * Population, Estimate 1933—1,570,232. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932             |  |  |  |  | ...                               | 14.03      | 12.81                                              | 0.59                   | 1.46                    | 5.11                                    | —                                                   | 72  |
| Year—                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                   |  |  |  |  | ...                               | 13.50      | 12.50                                              | 0.56                   | 1.52                    | 4.72                                    | 4.47                                                | 68  |
| 1933                                   |  |  |  |  | ...                               | 12.92      | 13.26                                              | 0.58                   | 1.50                    | 5.41                                    | 5.23                                                | 70  |
| Increase or decrease in 1933 on—       |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932            |  |  |  |  | ...                               | −1.11      | +0.45                                              | −0.01                  | +0.04                   | +0.30                                   | —                                                   | −2  |
| Previous year                          |  |  |  |  | ...                               | −0.58      | +0.76                                              | +0.02                  | −0.02                   | +0.69                                   | +0.76                                               | +2  |
| Aggregate of County Rural Districts.—  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| * Population, Estimate 1933—232,498.   |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932             |  |  |  |  | ...                               | 13.71      | 11.29                                              | 0.41                   | 1.27                    | 5.54                                    | —                                                   | 61  |
| Year—                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                   |  |  |  |  | ...                               | 13.12      | 11.09                                              | 0.37                   | 1.28                    | 4.56                                    | 4.34                                                | 65  |
| 1933                                   |  |  |  |  | ...                               | 12.70      | 12.09                                              | 0.40                   | 1.37                    | 4.71                                    | 4.47                                                | 61  |
| Increase or decrease in 1933 on—       |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932            |  |  |  |  | ...                               | −1.01      | +0.80                                              | −0.01                  | +0.10                   | −0.83                                   | —                                                   | nil |
| Previous year                          |  |  |  |  | ...                               | −0.42      | +1.00                                              | +0.03                  | +0.09                   | +0.15                                   | +0.13                                               | −4  |
| Administrative County.—                |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| * Population, Estimate 1933—1,802,730. |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| Mean of 5 years, 1928–1932             |  |  |  |  | ...                               | 13.99      | 12.58                                              | 0.57                   | 1.43                    | 5.33                                    | —                                                   | 70  |
| Year—                                  |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 1932                                   |  |  |  |  | ...                               | 13.44      | 12.29                                              | 0.54                   | 1.49                    | 4.70                                    | 4.45                                                | 67  |
| 1933                                   |  |  |  |  | ...                               | 12.89      | 13.09                                              | 0.55                   | 1.48                    | 5.40                                    | 5.12                                                | 68  |
| Increase or decrease in 1933 on—       |  |  |  |  |                                   |            |                                                    |                        |                         |                                         |                                                     |     |
| 5 years' average, 1928–1932            |  |  |  |  | ...                               | −1.10      | +0.51                                              | −0.02                  | +0.05                   | +0.07                                   | —                                                   | −2  |
| Previous year                          |  |  |  |  | ...                               | −0.55      | +0.80                                              | +0.01                  | −0.01                   | +0.70                                   | +0.67                                               | +1  |



## \*EXTRACT FROM THE METEOROLOGICAL REPORT

BY THE

Rev. J. P. ROWLAND, S.J., B.Sc., F.R.A.S., F.R.MET.SOC.,  
OF STONYHURST COLLEGE OBSERVATORY.

## SUMMARY OF OBSERVATIONS FOR 1933.

| Result of Observations taken during the Year.              |     |     |     |     |     |     |        |        |        | Mean for the last 86 years. |
|------------------------------------------------------------|-----|-----|-----|-----|-----|-----|--------|--------|--------|-----------------------------|
| READINGS OF BAROMETER IN INCHES.                           |     |     |     |     |     |     |        |        |        |                             |
| Mean of the year                                           | ... | ... | ... | ... | ... | ... | ...    | ...    | 29.570 | 29.494                      |
| Highest Monthly Mean (December)                            | ... | ... | ... | ... | ... | ... | ...    | ...    | 29.759 | 29.749                      |
| Lowest " (March)                                           | ... | ... | ... | ... | ... | ... | ...    | ...    | 29.434 | 29.227                      |
| Highest Reading (January 24th)                             | ... | ... | ... | ... | ... | ... | ...    | ...    | 30.302 | 30.297                      |
| Lowest " (October 28th)                                    | ... | ... | ... | ... | ... | ... | ...    | ...    | 28.627 | 28.218                      |
| Range                                                      | ... | ... | ... | ... | ... | ... | ...    | ...    | 1.675  | 2.079                       |
| THERMOMETER, FAHRENHEIT.                                   |     |     |     |     |     |     |        |        |        |                             |
| Highest Monthly Mean Temperature (July)                    | ... | ... | ... | ... | ... | ... | ...    | ...    | 61.2   | 58.6                        |
| Lowest " (December)                                        | ... | ... | ... | ... | ... | ... | ...    | ...    | 35.8   | 35.8                        |
| Highest Reading of a Max. Therm. (July 3rd, 7th)           | ... | ... | ... | ... | ... | ... | ...    | ...    | 81.2   | 81.1                        |
| Lowest Reading of a Min. Therm. (January 23rd, 24th)       | ... | ... | ... | ... | ... | ... | ...    | ...    | 22.0   | 16.8                        |
| Range of Thermometer Readings                              | ... | ... | ... | ... | ... | ... | ...    | ...    | 59.2   | 64.3                        |
| Mean of Highest Daily Readings                             | ... | ... | ... | ... | ... | ... | ...    | ...    | 54.6   | 54.3                        |
| Mean of Lowest Daily Readings                              | ... | ... | ... | ... | ... | ... | ...    | ...    | 42.8   | 41.1                        |
| Mean Daily Range                                           | ... | ... | ... | ... | ... | ... | ...    | ...    | 11.8   | 13.2                        |
| Deduced Mean Temperature (from Mean of Max. and Min.)      | ... | ... | ... | ... | ... | ... | ...    | ...    | 47.7   | 46.7                        |
| Mean Temperature from Dry Bulb                             | ... | ... | ... | ... | ... | ... | ...    | ...    | 48.8   | 47.2                        |
| Adopted Mean Temperature of the Year                       | ... | ... | ... | ... | ... | ... | ...    | ...    | 48.3   | 47.0                        |
| Mean Temperature of Evaporation                            | ... | ... | ... | ... | ... | ... | ...    | ...    | 45.7   | 44.7                        |
| Mean Temperature of Dew Point...                           | ... | ... | ... | ... | ... | ... | ...    | ...    | 42.4   | 42.1                        |
| Mean elastic force of Vapour                               | ... | ... | ... | ... | ... | ... | inches | 0.272  | 0.274  | 0.274                       |
| Mean weight of Vapour in a cubic foot of air               | ... | ... | ... | ... | ... | ... | grains | 3.1    | 3.2    | 3.2                         |
| Mean additional weight required for saturation             | ... | ... | ... | ... | ... | ... | "      | 0.8    | 0.7    | 0.7                         |
| Mean degree of Humidity (saturation 100)                   | ... | ... | ... | ... | ... | ... | ...    | 77     | 84     | 84                          |
| Mean weight of a cubic foot of air                         | ... | ... | ... | ... | ... | ... | grains | 538.5  | 539.0  | 539.0                       |
| Mean amount of Cloud (0—10)                                | ... | ... | ... | ... | ... | ... | ...    | 6.7    | 7.3    | 7.3                         |
| Total fall of Rain                                         | ... | ... | ... | ... | ... | ... | inches | 32.723 | 47.428 | 47.428                      |
| Greatest Monthly Rainfall (October)                        | ... | ... | ... | ... | ... | ... | "      | 5.248  | 7.607  | 7.607                       |
| Least " (December)                                         | ... | ... | ... | ... | ... | ... | "      | 0.729  | 1.219  | 1.219                       |
| Greatest Rainfall in one day (February 3rd)                | ... | ... | ... | ... | ... | ... | "      | 1.291  | 1.668  | 1.668                       |
| No. of days per Month on which .005 inch or more rain fell | ... | ... | ... | ... | ... | ... | ...    | 14.0   | 17.2   | 17.2                        |

## SUMMARY OF WIND.

|                                                 |     |     |     |      |      |       |      |      |       |                             |      |
|-------------------------------------------------|-----|-----|-----|------|------|-------|------|------|-------|-----------------------------|------|
| Prevailing direction                            | ... | ... | ... | N.   | N.E. | E.    | S.E. | S.   | S.W.  | W.                          | N.W. |
| No. of days for each                            | ... | ... | ... | 52   | 55   | 44    | 8    | 36   | 42    | 109                         | 19   |
| Mean Velocity in miles per hour                 | ... | ... | ... | 5.1  | 6.8  | 9.2   | 7.7  | 9.2  | 9.3   | 8.7                         | 7.7  |
| Total No. of miles for each direction           | ... | ... | ... | 7405 | 8962 | 10157 | 1483 | 7933 | 9386  | 22826                       | 3519 |
|                                                 |     |     |     |      |      |       |      |      |       | Mean for the last 66 years. |      |
| Total No. of miles registered                   | ... | ... | ... | ...  | ...  | ...   | ...  | ...  | 71671 | 84699                       |      |
| Greatest Monthly Total (February)               | ... | ... | ... | ...  | ...  | ...   | ...  | ...  | 7947  | 9876                        |      |
| Least " " (December)                            | ... | ... | ... | ...  | ...  | ...   | ...  | ...  | 4477  | 4885                        |      |
| Greatest recorded hourly velocity (January 2nd) | ... | ... | ... | ...  | ...  | ...   | ...  | ...  | 47    | 50                          |      |
| Prevailing Direction of Wind                    | ... | ... | ... | ...  | ...  | ...   | ...  | ...  | W     | W                           |      |

\* Introduced by kind permission.